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THE MEDIAEVAL MEDITERRANEAN * * *

Marble Past, Monumental Present

Building with Antiquities
in the Mediaeval Mediterranean

Michael Greenhalgh



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Marble Past, Monumental Present

The Medieval Mediterranean

Peoples, Economies and Cultures, 400–1500

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Marble Past, Monumental Present

Building with Antiquities in the
Mediaeval Mediterranean

By

Michael Greenhalgh



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Cover illustration: Mihrab, Madrasa Al-Firdaws, Aleppo, 1235–41. This miracle of marquetry technique re-uses white marble, red porphyry and green diorite, jigsawed in depth. Conceivably the yellow stone has been cut from antique columns (such as those in the courtyard?).

Photograph by the author.

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PREFACE

Overview

This book surveys the various uses for which marble and antiquities were employed, structurally and decoratively, over the whole of the Mediterranean during the Millennium following the Emperor Constantine. It is a broad survey, through the telescope not the microscope.¹ Frequently its contents rely on the detailed work of other scholars, and the work's timespan has so many broken threads and obscurities that it offers only general rationales about why marble was used, and to what possible political or religious ends. In areas with the heavy footprint of Roman marble—and areas in which the search for sophisticated building supplies paralleled population expansion, marble is a tie, binding Venice to Alexandria, Damascus to Córdoba, and Constantinople to Aachen. Yet more links follow: Jerusalem cannot be dealt with without reference to Rome, Córdoba without Syria, Damascus without Kairouan, or Istanbul without Cairo. Its use is a barometer in the Christian world of the continuing workings of Early Christian architecture (and sometimes perhaps of nostalgia for pagan Rome), and in the Muslim world of constructions which in our period outranked most of those in Christendom until c.1100.

Much work over the past few decades has been concentrated on the re-use of antiquities in specific sites or cities, but the focus has been on Italy, then France and Germany, with much less attention paid to Byzantium, Visigothic Spain, or anywhere in the Islamic world. But marble was spread all around the Mediterranean by the Romans, exercising its spell not only in Western Europe, but on the southern and eastern shores of that sea as well. And since marble-rich sites and cities were connected together at various times and in varying degrees by trade,

¹ Cf. Skidelsky, Robert, letter in *TLS* Oct. 20 2006, 17, lamenting the “loss of the sense of what is significant about the past...Broad survey courses have disappeared from school and university studies The great interpretative schemes of the past, including Marxism, have withered away.... The failure of many of these large interpretative efforts...has led academic historians to substitute the microscope for the telescope...”

war and diplomacy, as well as the imperatives of religion, this book views the area as a whole: far from being invidious, such an overview is essential if we are accurately to assess achievement (and perhaps get at least a glimpse of intention) in a period when it is frequently demonstrable that much was known to rulers (mosaic-glitterati?) about what was happening a thousand kilometres away.

Hence a main feature is to attempt an even-handed assessment of how Islam and Christendom use attractive marbles and other antiquities in new buildings, without canting the available evidence (which is usually weak) or reading it backwards from what *should* have happened. Making available data fit a theory (rather than vice versa) gives an importance to Carolingian architecture that its remains or accounts of them cannot support, and suggests that Venice *must* have obtained the materials for San Marco during the Sack of Constantinople, rather than earlier.

Layout of the Printed Book

Some chapters have been grouped geographically (Italy, France), some thematically (Quarrying and Transport, Looting and Trophies), while the two chapters dedicated to Islam necessarily criss-cross the Mediterranean, tracking inspiration and influence.

The text of the book gives an overview of the topics involved in the study of marble in the Middle Ages and, in order to keep matters brief, the footnotes often try to cite recent studies with good references to the literature rather than attempting full bibliographies for all the features of this very broad survey. When they first appear in the notes, books and papers are cited in full, except for those frequently cited (cf. bibliography), which always appear in their abbreviated form. Books or papers with especially useful bibliographies in their particular area are prefaced by an asterisk. All the works cited in the footnotes appear again in the bibliography; journal-names common in Western art history and archaeology are abbreviated. No Arabic diacritics have been used; spellings for commissioners and architectural terms are generally those found at <http://archnet.org>. Many of the dates (which on the DVD refer to the building, not the re-used material) are rubbery. Sometimes more than one date is given, to indicate the likelihood of re-use which is a theme of the book.

The World Wide Web

This book routinely quotes material from the World Wide Web, and includes a DVD of images, viewable within a web browser. In its 15 years or so of growth, the web has become a very useful research tool in its own right, not only for images and bibliographies, but also for increasingly substantial quantities of source-texts (including large collections such as the *Monumenta Germaniae Historica*, the *Acta Sanctorum* and the *Patrologia Latina*), scholarly articles, which are often advanced preprints, and (digitized) printed books, some completely text-searchable. To present this book without such digital references would be to look at the subject with an obscuring eye-patch, since the reader as well as the author benefits from the ability to search what are now enormous collections online,² and which could be used to extend the reach of some of the topics I discuss. Hence this book's references and bibliography include web URLs of collections. However, readers should bear in mind that the web is a protean being, and it cannot be guaranteed that material in existence at the end of an URL when last checked by the author will necessarily still be drawing digital breath when the reader clicks the same hotlink.

The DVD

To access the DVD, which should appear as **marble_past** under the drive letter allocated to your CD/DVD drive, click the icon to open, and then click on the file **click_here.html**. This will give you the top-level menu, from which both the discussions and images on the disk can be accessed.

The majority of monuments mentioned in the body of the text (but not necessarily in the footnotes) are illustrated or referenced on the DVD, which contains over 5000 images. Usually these are images of which I hold the copyright (which I waive for re-use for any academic or scholarly purpose by readers of this book). Other images are out-of-copyright because of age or because they have been explicitly placed in the public domain. Occasionally there are images for which I have received permission from the copyright holders. The great capacity of a DVD means that many of the monuments discussed in the book are

² Some germane ones listed in dvd_electronic_databanks.doc.

illustrated by multiple images—and some monuments that are relevant to the broader picture but are not discussed are also included, since the topic is broader than my printed text. And since the book is about the continuing fascination with the beauty of the material, the DVD also contains images of marble samples, which illustrate the wide variety of colours, veinings and effects available to builders and re-builders. Generally, I offer only a restricted number of images from well-known monuments, and have included a greater quantity from less-well-known monuments or sites. I thank the following for permission to include their images: Katherine Branning;³ Dick Osseman;⁴ Mauro Piergigli;⁵ Frederik Questier;⁶ and the UCLA 3D Modelling Lab,⁷ and various authors on Flickr, for placing their images under the Creative Commons licence.⁸ In a very few cases, I have been unable to locate the copyright owners.

Most of the images are of high quality, but many were taken under far-from-perfect conditions. The long-and-narrow thumbnails are usually panoramas, and users should note that the projections used distort straight lines (such as entablatures) into curves. All images are intended for viewing using a web browser, which will show the image full-size or reduced to the browser window dimensions. The bibliography includes occasional picture-books, to compensate for the difficulty of getting images of certain buildings, or gaining access to them.

The images on the DVD are all in one database, and may be examined according to any of the following groupings which are simply different views of the same data:

1. Complete, all countries Algeria to Turkey;
2. By individual country;
3. By monument-type, viz. baptisteries, bases, campanili & minarets, capitals, columns, floors, fortresses & city walls, funerary, marble, mihrabs, mosaics, palaces, porphyry, pulpits, sarcophagi, temples and veneer. Evidently, several of these categories overlap; and I have not thought it worthwhile to include such broad ones as “church” or “mosque.”

³ <http://www.turkishhan.org/>.

⁴ <http://www.pbase.com/dosseman>.

⁵ <http://www.italiamedievale.org>.

⁶ <http://questier.com/Photos/>.

⁷ <http://www.ats.ucla.edu>.

⁸ <http://www.flickr.com/photos/>. I have retained the original flickr image numbers.

Just as the printed book stands alone, so the DVD might also be treated as a survey of the “marble horizons” which the book covers. But it also serves as a companion to the printed text, because I have included on the DVD several discussions dealing with some of the monuments and problems addressed only in general terms in the printed book. Were they to have been addressed there, they would have overbalanced the text. Each of these is flagged in the footnotes, beginning “dvd”—such as `dvd_ibn_khaldun_extracts.doc`.

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Michael Greenhalgh

PART ONE

SETTING THE SCENE

CHAPTER ONE

INTRODUCTION

The Mediterranean: a lake surrounded by marble

The title of this book indicates two foci which are really one: works of monumental architecture (including “monuments” in the funerary sense) are an important product of ancient civilization since long before the Greeks. What the Greeks added, geography meeting aesthetics, was the building of monuments in marble—a practice enthusiastically adopted by the Romans. The Greeks and the Romans prized marble for a variety of reasons, as we shall see. The Romans left behind them many more marble monuments than the Greeks because they had a far-flung empire, a policy of conquest and assimilation, and an industrial and commercial infrastructure to deliver materials and workmen where they were needed. The oft-quoted aphorism that Augustus found Rome a city of brick and left it a city of marble has its heart in the right place, but it is probably too late by a couple of generations; for the Romans gained a taste for marble long before Augustus was born. Indeed, marble and travertine were necessary to protect the tufo used beneath them, and they had far greater compressive strengths than tufo, as Vitruvius remarks.¹ When the Empire in the West collapsed, and quarrying stopped (perhaps by c.500 in the West, and c.600 in the East), many of its aesthetic preferences moved east, to Byzantium, and then south to the newly forming Islamic world, which conquered large tracts of the erstwhile Roman Empire and, eventually, the whole of the Byzantine Empire as well. By 800, Islam had more Roman ruins within its domains than either Byzantium or the West, and that proportion increased over time, due to Ottoman encroachments.

Durliat reminds us that the object of commerce was to procure indispensable items that were lacking locally.² This book will study marble,

¹ Jackson, M.D., et al., “The judicious selection and preservation of tuff and travertine building stone in ancient Rome,” *Archaeometry* 47.3, 2005, 485–510: see 506, 507ff.

² Durliat, Jean, “Les conditions du commerce au VI^e siècle,” in Hodges, Richard, & Bowden, William, eds., *The sixth century: production, distribution, and demand*, (Leiden 1998), 88–117.

an “eternal” stone,³ as a valuable material to be traded, appropriated or looted. Today it is more popular than ever.⁴ One of the book’s themes is that some of the extravagancies of post-first-Millennium architecture in the West, so well seen in Pisa and Venice, probably owe some of their interest in grand architecture to the example of a monumentally confident and marble-saturated Islam (although of course the argument is necessarily slanted by what survives). The Pisans prized Islamic lands for silk, but also for ceramics, granite and marble for their monuments. The message of the book is that a proper consideration of several architectural developments in mediaeval European architecture, and especially those concerned with size, ornamentation and marble (or its surrogates) should be set in the context of Islamic example in order fully to be understood. This is not a startling idea since other elements of the heritage of the antique world are transmitted to the West via Islam, and architecture forms a part of that bigger pool.

The Middle Ages within the area of the Roman Empire lived on top of and surrounded by the detritus of marble, brick and mosaic Antiquity, which provided ordinary building materials⁵ and high-quality marble elements,⁶ as well as inspiration for various stylistic revivals. Often the choice of re-usable marble varieties was wide, because of energetic Roman export practices,⁷ fashions and thirst for exotic varieties. To take but one type, marble from Iasos, called cipollino rosso, is found reused at Kairouan, Cairo, Oea (Tripoli),⁸ Patmos, Jerusalem, Damascus and Salerno, as well as in late Quattrocento contexts in Venice and Ravenna.⁹ Quarries with spoilheaps and stockpiles sur-

³ Giusti, Anna Maria, ed., *Eternità e nobiltà di materie: itinerario artistico fra le pietre policrome*, (Florence 2003) for a broad overview.

⁴ <http://www.worldstonex.com/en/marble.asp> for 1130 available marbles, with colour images, and a searchable database.

⁵ <http://www.archaeology.org/interactive/sagalassos/field05/survey15.html> for Marc Waelkens’ study of re-use at Sagalassos.

⁶ <http://www.archaeology.org/interactive/sagalassos/field06/apollo3.html>: for Marc Waelkens’ investigation of the Apollo Klarios sanctuary at Sagalassos, where Trajanic capitals were used in the Middle Byzantine basilica.

⁷ Dodge, Hazel, “Decorative stones for architecture in the Roman Empire,” *OJA* 7.1 1988, 65–80, for main sources of stones, and maps of their distribution by type.

⁸ A city rich in re-use: cf. Ciranna, Simonetta, “La città mediterranea: archeologia e spolia nella Medina di Tripoli,” *Ricerche di storia dell’arte*, 86 2005, 53–60.

⁹ Lazzarini, Lorenzo, Cancelliere, Stefano, & Bierbon Benoit, Raffaella, “Il marmo di Iasos: cave, uso, caratterizzazione e indagini archeometriche,” *La parola del Passato* LX 2005 (*Iasos e la Caria, Nuovi Studi e Ricerche*), 320–31; fig. 2 for spread of primary and secondary use.

rounded the Mediterranean.¹⁰ The new religion of Christianity and the newer one of Islam created new styles of architecture, often re-using the building-blocks of Rome, sometimes brought from afar, sometimes imitating pseudo-Roman characteristics. This, then, is a book for those interested in the relationship between architecture and the antique in the mediaeval centuries, and in the mechanics of trade, travel and building. Avoiding ongoing debates about Braudel,¹¹ and acknowledging the changing fashions in how the period is viewed,¹² it provides an overview of the Mediterranean-wide popularity and re-uses of a prestigious material. It omits except in passing any consideration of small objects in prized stones—cups, vases, jars—which were certainly admired in the Middle Ages, and survive from church treasuries and secular collections (Saint-Denis, Lorenzo de' Medici), and which are proof of a fascination with polish, pattern and colour—the miniature version, as it were, of larger marble church, mosque and palace fittings.

Such a focus has the obvious danger of breadth rather than depth, but compensating for this is a treatment which includes the Islamic and Byzantine worlds as well as that of Western Christianity. This is simple logic because, not surprisingly, marble often got re-used in areas to which the Romans had so strenuously carried it for their monumental buildings. Knowing the cross-fertilising effects of pilgrimage and trade, can one really study the Palatine Chapel at Aachen separately from the Holy Sepulchre in Jerusalem, or from the Dome of the Rock? Indeed, marble in churches is often intended to evoke the Heavenly Jerusalem, as well as the Holy Sepulchre and other pilgrimage sites.¹³ But is it not noteworthy that there are no contemporary churches of a size or magnificence to bear comparison with the mosques of Kairouan,

¹⁰ A quick if incomplete *tour de bassin* by Perrier, Raymond, “Gisements de roches ornementales de l’Europe méditerranéenne (Grèce, Italie, France, Espagne),” at <http://perso.orange.fr/roches-ornementales/Europmedit.html>.

¹¹ Cf. Hordern, Peregrine, “Mediterranean excuses: historical writing on the Mediterranean since Braudel,” *History and Anthropology* 16.1, March 2005, 25–30. For a book concerned with definitions, networks, cultures and identities cf. Malkin, Irad, ed., *Mediterranean paradigms and classical antiquity*, (London and New York 2005), e.g. 9–29; Purcell, Nicholas, “The boundless sea of unlikeness? On defining the Mediterranean.” Sant Cassia, Paul, Review article: “Navigating an anthropology of the Mediterranean: recent developments in France,” *History and Anthropology*, 2003 14.1, 87–94.

¹² Ward-Perkins, Bryan, *The fall of Rome and the end of civilization*, (Oxford 2005), 169ff. for a sceptical overview.

¹³ *Bonnery, André, et al., *Jérusalem. Symboles et représentations dans l’occident médiéval*, (Paris 1998); 133ff. for representations of the city and its monuments.

Damascus or Córdoba? Reasons for the disparity range from a lower popularity and lack of manpower, to a temporary loss of the civic mentality that had occasioned large monuments in earlier centuries. The disparity between Christians and Muslims was surely evident to mediaeval travellers, whether pilgrims, traders, ambassadors or scholars. When antique columns were hauled to Aachen, Montecassino, or Pisa, was this indeed a spin-off of the current “revival of the antique” (artificial barriers to periodise a continuum), or perhaps emulation of what the Moslems were doing to the East, West or South? Scholars are comfortable with the Rome-Constantinople axis, but few acknowledge the size and splendour of Islamic structures which make Aachen look like a well-equipped garden shed. The disparity raises the question of whether Christianity sometimes attempts rivalry with the achievements of Islam, rather than being constantly in thrall to some vague awakening to the glories of the Roman past. Was Islam perhaps the main motor of marble-building for centuries, in imitation of Byzantines and Romans before them, and hence with the West playing catch-up later? Certainly, a characteristic mentality useful for the theme of this book is a desire among both Christians and Moslems always to count, measure and compare so that, if we often lack details of structures, especially vanished ones, the number of columns in them is often available—or the number of bricks in the Round City of Baghdad, the number of bricks per course, and so on.¹⁴ Just as writers measured interest by quantity, so too they considered distance to be an explicit measure of virtue. This accrued (especially on pilgrimage) in proportion to distance traveled.¹⁵

To introduce the subject, this chapter considers the implications of the Roman “marble footprint,” and gives some brief account of the relationship between population levels and the retrieval (and destruction) of earlier structures,¹⁶ evidence of which is often visible in archaeological digs.¹⁷ It bemoans the scarcity of reliable documentation which can

¹⁴ Kennedy, Hugh, *When Baghdad ruled the Muslim world: the rise and fall of Islam's greatest dynasty*, (Cambridge, MA 2005), 135.

¹⁵ Calasso, G., “Les tâches du voyageur: décrire, mesurer, compter, chez Ibn Jubayr, Naser-e Khosrow e Ibn Battuta,” *Rivista degli studi orientali* LXXIII/1–4, 1999, 69–104; see 77, 79; 93ff. for Ibn Jubayr's measuring of Mecca.

¹⁶ Frey, Jon Michael, *Speaking through spolia: the language of architectural reuse in the fortifications of late Roman Greece*, PhD, (UC Berkeley, 2006), chaps 1–3 for a survey of research.

¹⁷ Milanese, Marco, “Processi di spoglio e riuso in età postclassica. Osservazioni

detail how marble was reused, and with what end in view. It underlines marble scarcity by introducing the frequent marble substitutes from limestone to stucco (often made with powdered marble) and painted walls, as well as the various latitudinarian concepts of what marble actually is. Finally, it summarizes the geographical and chronological plan of subsequent chapters.

Marble is a brilliant material (Greek: “marmàiro” = to shine), and its prestige is multi-valent. It lies in the material itself, for its beauty, solidity and longevity, its colours¹⁸ and polishes,¹⁹ and its ability to reflect light,²⁰ so that Paschal’s apse inscription for his restoration of S. Cecilia in Trastevere (817–24) reads “This spacious house, built of varied materials, shines.”²¹ In Alexandria, a 12th-century Arab commentator tells us that Solomon built a room with pillars of marble in which one could see the people behind one’s back, “so pure was the marble’s reflection.”²² For Thévenot, the marble paving slabs in the courtyard of

su recenti documenti archeologici,” in Giannattasio, Bianca Maria, ed., *Atti X giornata archeologica: Il passato riproposto: Continuità e recupero dall’antichità ad oggi*, (Genoa 1999), 131–72.

¹⁸ *De Nuccio, Marilda, & Ungaro, Lucrezia, eds., *I marmi colorate della Roma imperiale*, (Venice 2002), *passim*.

¹⁹ Cagnana, Aurora, *Archeologia dei materiali da costruzione*, (Mantua 2000); 30 for polishing. Masudi maintains that at Alexandria “awnings of green silk were hung over the streets to relieve the dazzling glare of the marble:” cf. Butler, A.J., *The Arab Conquest of Egypt*, (1902), rev. ed. by Fraser, P.M., Oxford 1978, 370.

²⁰ Procopius, *Buildings* I.1.29–30: Hagia Sophia “abounds exceedingly in sunlight and in the reflection of the sun’s rays from the marble. Indeed one might say that its interior is not illuminated from without by the sun, but that the radiance comes into being within it.” Bramon, Dolors, *El mundo en el siglo XII: estudio de la versión castellana y del original árabe de una geografía universal*, “*El tratado de al-Žuhri*,” (Sabadell 1991), 152–3 for the salon at Madinat al-Zahra: “sus paredes eran doradas y de cristal grueso y transparente y tenía tejas de oro y plata. Al entrar el sol por dichas puertas, sus rayos se reflejaban en el techo y en las paredes del salón, convirtiendo la luz en algo tan brillante que hería la vista.” For fables about marble, and magic, cf. *Julien, Pascal, *Marbres de carrières en palais*, (Manosque 2006), 19ff.

²¹ *Goodson, Caroline J., “Material memory: rebuilding the basilica of S. Cecilia in Trastevere, Rome,” *Early Medieval Europe* 15.1 2007, 2–34; Desiderius, abbot of Montecassino, was cardinal here and, like Paschal, lavished old marble on his own restorations.

²² Ferrand, G., “Les monuments de l’Égypte au XII^e siècle d’après Abu Hamid Al-Andalusi,” *Mélanges Maspéro*, III, Cairo 1935–1940, 57–66; see 60. Edition as *Al-Gharnati, Voyages*, 56–8 for the marvels of Alexandria, including “une salle d’audience édifée par les djinns pour Salomon et reposant sur d’incomparables colonnes de marbre... La salle possède une porte de marbre alors que la marche, le seuil et les deux montants sont également de ce marbre rouge, qui a la beauté du jaspé de première qualité. Il est lisse comme un miroir: quand on y regarde, on voit ce qui vient à pied, derrière soi, depuis Alexandrie.” This is a topos: cf. Al-Harawi, *Guide*, 160 for the Great Mosque

the Umayyad Mosque at Damascus shine like mirrors.²³ Use of marble is proof of competence in finding, transporting and erecting it, and underlines awareness that it was a diminishing resource, eagerly sought by others. It also has a money-in-the-bank attraction, as something to be hoarded and deeded. Finally, its God-created and bejeweled beauty, and its manifold connections with heavenly cities and Paradise itself, make it the subject of admiring writing and the primary material for the beautification of mosques and churches.²⁴ All these elements fascinated the Middle Ages as they had the Romans.²⁵ Such a sensuous material was probably intended to be touched or caressed, especially as part of the “package of the senses” brought into play in Byzantine architecture.²⁶ Finally, its connections with the past—the Roman and Early Christian past for the West—were well known, and it is surely no accident that “the prevailing metaphor for the power of saintly relics was that of light”²⁷—just as it was for the marble within which they were privileged to reside. For Islam, not often interested in any classical tradition,²⁸ any connection was perhaps of superiority through conquest, and certainly the Muslim architectures developed with marble look much more un-Roman than those of their Christian competitors. Although some structural and decorative elements were often rehearsed (such as doorways, altars,²⁹ ciboria, and in MS illumination), the West rarely attempted, except for a few city gates and the Tempietto del Clitunno (perhaps a Lombard court product of the 7–8th century?), to resurrect pagan Roman architecture either. They were much more

at Samarra: “son revêtement de verre ressemble à un miroir ou l’on voit, lorsqu’on fait face à la qibla, quiconque entre et sort du côté nord.”

²³ Thévenot, André, *Relation d’un Voyage au Levant*, (Paris 1664), 435.

²⁴ Colli, Agostino, “La tradizione figurativa della Gerusalemme celeste: linee di sviluppo dal sec. III al secolo XIV,” in Gatti Perer, M.L., editor, (exhibition); **La dimora di Dio con gli uomini: immagini della Gerusalemme celeste dal III al XIV secolo*, Milan 1983, 119–44; see 129–33 for “La Gerusalemme celeste come città gemmata.”

²⁵ Chardron-Picault, P., et al., eds., *Les roches décoratives dans l’architecture antique et du haut Moyen Âge*, (Paris 2004), passim.

²⁶ James, Liz, “Senses and sensibility in Byzantium,” *Art History*, 27.4, September 2004, 522–537, especially 526f.

²⁷ Crook, *Cult of saints*, 33: “the power of relics seemed to obey the inverse square law that has been long familiar to physicists as governing electromagnetic radiation.”

²⁸ Raby, Julian, Nur Al-Din, “The Qastal Al-Shu’aybiyya, and the ‘classical revival’,” *Muqarnas* 21 2004, 289–310.

²⁹ Many altars were reused in Roman churches: Marangoni, *Delle cose gentilesche*, 165–86; 186ff. for funerary altars.

interested in the tradition of the Early Christian basilica, and it was this that made them such avid customers for re-usable marble.

What we can only guess at across Europe and the East is the rate of spoliation. What evidence we have suggests that it accelerated during the later Middle Ages, to build new cities in the West and also the cities of the Islamic and Ottoman Empires. An alert (if late) observer is Cyriacus of Ancona, who made two visits to Cyzicus, the site of the huge temple at Marmara (destroyed by an earthquake in the 11th century), in 1431 and 1444/5. He bemoaned the rapid loss of materials, with only one of the thirty-one columns seen in 1431 surviving, with a reduced part of the epistyle—and marble walls in the nearby town.³⁰ On his second visit, he sweet-talked the local Bey, persuading him to forbid further destruction, “lest all trace of the building be lost to posterity... the still-standing walls, columns and architraves of this spectacular monument.”³¹ But to no avail, and “no later author mentions so much as a single columns standing.”³² At this date, the re-usable marble was going to Bursa.³³ Nor was this just an eastern problem, for antiquities disappeared in Europe during the centuries of antiquarianism and museums.³⁴ Indeed, the destruction of monuments is as old as their re-use. For example, following the Athenian desecration of religious monuments at Sardis in 499 BC, the Persians at Old Paphos (Cyprus)

³⁰ Bodnar & Mitchell, “Cyriacus of Ancona’s journeys,” 28, 30.

³¹ Bodnar, Edward W., & Mitchell, Charles, eds., “Francesco Scalamenti: Vita viri clarissimi et famosissimi Kyriaci Anconitani,” *Trans Am. Phil. Soc.* 86.4 1996, 127, para 81.

³² Hasluck, Frederick William, *Cyzicus: being some account of the history and antiquities of that city, etc.*, (Cambridge 1910), 10. Similarly Pococke mentions an agora and a Corinthian portico—all gone when Texier visited in 1835: cf. Texier, *Asie Mineure*, 69–71: the amphitheatre was clearly in good condition, but only in parts: “S’il reste encore quelques vestiges de ce monument, comme des murailles, on doit l’attribuer uniquement à la nature des matériaux, qui n’étaient pas propres à être utilisés, soit pour les constructions modernes, soit pour fabriquer des boulets... Le temple... occupait une espace immense et s’élevait sur de vastes galeries souterraines... Il est bien difficile de juger aujourd’hui de l’ensemble des constructions; mais, d’après les débris épars de corniches et de chapiteaux, on peut être assuré que la finesse de la sculpture ne répondit pas à la majesté de l’ensemble...”

³³ Robert, Louis, “Un décret de Cyzique sur le Bosphore,” in his *Documents d’Asie Mineure*, (Paris 1987), 148–56; see 151.

³⁴ Stenhouse, William, *Ancient inscriptions (The Paper Museum of Cassiano dal Pozzo)*, London 2002: Cassiano (d.1657) records 213 inscriptions (of which a fair proportion are fakes), and 30 recorded by his day are now lost—i.e. over 15%.

in 498 BC destroyed an extramural sanctuary and used the materials to make a mound for positioning their siege machines.³⁵

New marble architecture from prestige materials

This book studies how new architectures were created in the Middle Ages, reusing elements of the classical past, especially column-shafts and capitals. It cannot study the transport and re-erection of classical buildings, because this simply did not happen, even in Rome. And so the Hephaesteion, bijou-size, marble and perfect—would have been easy to dismantle and re-use, yet remains intact in Athens to this day. This surely has to do with aesthetics rather than any transport difficulties. (In the same period, for example, the Japanese frequently moved centuries-old wooden temples, some of the members of which would have weighed much more—and been much more unwieldy—than a four-metre marble column.) The book naturally looks at those entities we have been schooled to think of as the inheritors of Roman architecture (the West and Byzantium), but it also examines the Islamic world around the Mediterranean, because from the birth of the new religion until perhaps 1100 the Moslems probably used more marble than the West, and that use had repercussions for the West, as we shall see. Re-use is probably a constant in human affairs, from literature and law, documents, names and historiography to the architectural and decorative materials that interest us here.³⁶

I emphasize at this point that this book is focused on marble rather than specifically on re-use, for which other works should be consulted,³⁷ although most such works are narrowly focussed.³⁸ Since the majority of the marble used during the Middle Ages was indeed re-used, the

³⁵ Wright, G.R.H., & White, D., "Siegecraft and spoliation, c.500 BC: a tale of two cities," *Libyan Studies* 36 2005, 21–42.

³⁶ These categories and others treated in Toubert, Pierre, *Pratiques du remploi au Moyen Âge dans les pays de la Méditerranée occidentale (X^e–XIII^e siècles)*, (Colloquium, Madrid, Casa de Velázquez, March 2006), not yet published. Details at <http://www.casadevelazquez.org/factpres.htm>.

³⁷ Overview in Settis, Salvatore, "Les remplois," in Furet, François, ed., *Patrimoine, temps, espace: patrimoine en place, patrimoine déplacé: Entretiens du patrimoine*, (Paris 1997), 67–86. His *Remplois. Usage et connaissance de l'Antique au Moyen Âge* will be published by Macula.

³⁸ Frey, *Speaking through spolia*, abstract: "the majority of recent work tends to concentrate on a small set of monuments mainly located on the Italian peninsula."

various assertions about the contemporary value(s) placed on spoliation cannot wholly be ignored, and these are considered on the DVD.³⁹

Although much has been written on the re-use of antiquities in the West, the same cannot be said for points East and South, with Constantinople being the exception. Italy and France provide foci for several studies, which is logical for Westerners who see the Roman Empire as a Western affair. But what happened elsewhere? Although an obvious place to start for anyone with a European background, it is myopic to restrict one's attention to the Italian peninsula and points West, when a majority of the greatest classical monuments are to be found to the East, in present-day Turkey, and on the eastern and southern shores of the Mediterranean. The low populations in such areas allow us much better opportunities to examine how the monuments were treated, and re-used. Nevertheless, much has disappeared from (for example) Turkey in the past two centuries, whether for building, or railway or road ballast. In 1811 Beaufort states he saw 200 columns at Pompeiopolis (even if only 44 were standing), and a "ruined wall with towers surrounding the city;" while at Side he saw many of the columns were rounded "into balls, such as the Turks use in their immense cannon at the Dardanelles and at Smyrna."⁴⁰ Little remains today. Of Roman funerary urns catalogued in the CIL on the Amalfi coast, 48 have since disappeared (mostly from churches), and 46 survive, six of these in the Cathedral of Ravello.⁴¹ The same is the case in Tunisia, where a French army report of 1885 notes plenty of long-abandoned Roman quarries, of ruins scattered over the landscape, and of "carved blocks of all dimensions—such resources that they can seem inexhaustible, if the needs of the population stay the same."⁴² But they didn't, and now little remains in this area—a story repeated across Tunisia and Algeria, as the *colons* took the easy route to building.

Naturally, I exclude consideration of the fortuitous re-use of materials, where builders have simply employed what is lying around just because it is to hand. This, of course, includes the great majority of pieces throughout the Middle Ages, when quarrying and transport difficulties, not to mention manpower shortages combined with the large quantities

³⁹ dvd_spolia_a_definition_in_ruins.doc.

⁴⁰ Beaufort, Francis, *Karamania, or a brief description of the south coast of Asia-Minor and of the remains of antiquity*, 2nd ed., London 1818, 31.

⁴¹ Bracco, Vittorio, *Le urne romane della costa d'Amalfi*, (Amalfi 1977), 79f. & 83ff.

⁴² SHAT, MR1332 Tribu de Feriana, 13th May 1885, 19–20.

of disused and ruinous buildings, militated in favour of such re-use. This we may call economic re-use. It would be courageous to deduce any aesthetic meaning at all for the Frankish Tower on the Acropolis at Athens,⁴³ or from the rooms fitted out in the Propylea,⁴⁴ or anything other than practicality and low-grade tidiness when the 1311 contract for the construction of (some new) city walls at Rieti stipulated that the outer face be *lapides aptati*, i.e. squared, and the inner face *lapides non aptati*.⁴⁵ But there are some tricky “middle” cases. At Athens, again, the Beulé gate precisely reuses the doric frieze of the Nikias monument as its architrave, and recent work in the Library of Hadrian finds that the spolia walls passing through that complex even copy the mouldings & string courses of the older monument. How lucky were the inhabitants of Miletus, who could construct the exquisite Ilyas Bey mosque completely from ancient marble—although it would have been much easier to re-use old bricks from the site (which was thriving in the 6th and 7th centuries)! Both bricks and marble were freely available, so what should we read into the decision to use marble? The general solution was one used in Rome: old bricks for the shell, and old marble for the furnishings. Throughout, we should bear in mind that anything useful gets re-used (the same word): the best example is pottery, for which Peña lists 27 types of re-use, excluding both repackaging amphorae and recycling them.⁴⁶

Indeed, the proof of the prestige of the new (if sometimes revivalist) marble architecture of the Middle Ages is not only that it holds sway over all the lands where the Romans left their imprint, Christian and Muslim, but also that it enables the construction of signal monuments which in many Western-oriented studies are routinely left outside the European focus. As already intimated the Muslims, from the Dome of the Rock to the Millennium, used much more marble than the

⁴³ Lock, P., “The Frankish tower on the Acropolis at Athens: the photographs of William J. Stillman,” *Ann. Brit. Sch. Athens* 82, 1987, 131–3; Tomlinson, R.A., “The Acropolis of Athens in the 1870s: the evidence of the Alma-Tadema photographs,” *ibid.*, 297–304, especially 301 & plate 48.

⁴⁴ “Relation du pèlerinage à Jerusalem de Nicolas de Martoni, notaire italien (1394–5),” *Revue de l’Orient Latin* III 1895, 566–669; see 650–1: “De castro Acthenarum et sala ipsius: there is a sala magna with 13 columns. Supra quas columnas sunt trabes longi pedibus triginta, et supra ipsas trabes sont tabule marmoree: magnum et mirabile opus videtur.”

⁴⁵ Leggio, T., “Le fortificazioni di Rieti dall’alto medioevo al rinascimento,” *Quaderni di Storia Urbana e Territoriale*, 4 1989, 14.

⁴⁶ Peña, J. Theodore, *Roman pottery in the archaeological record*, (Cambridge 2007), 119–208.

Christians, but carried no baggage of classical tradition, “renovatio” or whatever to colour their appreciation of it. Hence to the usual art-historical axis of Europe-Byzantium we should add Europe-Islam and Islam-Byzantium. Scholars have certainly not ignored the manifold influences from Islamic decorative arts upon the arts of Europe, but there is a continuing tendency at least in Art History to compartmentalize—so that to examine Charlemagne’s Palace Chapel in the context of Islam would seem unnatural, but to do so in the context of Byzantium would seem obvious—and this in spite of the fact that all the large-scale and expensive contemporary architectural ventures are Islamic not Byzantine.⁴⁷ If, given the frankly disappointing nature of much early mediaeval architecture (one or two churches in Brescia, Benevento, Spoleto and 9th-century Rome and Milan excepted), we caricature early mediaeval Westerners as sitting despondently in their shack-like homes waiting for the next renovatio to come along, the true picture in the Moslem world is far different, thanks to the three pursuits of commerce, war and pilgrimage. In Spain (Córdoba), Tunisia (Kairouan) and Syria (Damascus), to take but three examples, the Moslems erected sumptuous buildings in a new style, affirming their architectural precedence over the rest of the Mediterranean. They established a standard which would profoundly affect Western re-use of marble, seen in the cathedrals at Pisa and Salerno, the Basilica of S. Marco in Venice, large numbers of smaller religious structures marbled inside, outside or both, and perhaps numbers of long-vanished palaces and civic buildings of which we know little.

The lack of such a suitably broad perspective in some scholarship is apparent in the great Italian encyclopaedias (—Italy, the country of Leone Caetani and Michele Amari) such as to make even a cynic believe that Edward Said had a point about the unfortunate consequences of “orientalism.” The *Enciclopedia dell’arte medievale* (12 vols, 11,000 illustrations, 10,500 pages) is hymned on the Treccani website for its coverage, but this largely excludes Islam.⁴⁸ The bibliographical collection *Medioevo Latino* (XXVII 2006) has 15,491 entries, of which a

⁴⁷ Hen, Yitzhak, “Charlemagne’s Jihad,” *Viator* 37 2006, 33–51; see 51: “It is time to question our bold tendency to dismiss instantly any Muslim influence on the cultural, religious and political history of early medieval Francia.”

⁴⁸ “L’esplorazione è di una vastità che non conosce precedenti: dal VI secolo alla fine del XIV, *l’Enciclopedia dell’Arte Medievale* illustra e analizza ogni tipo e forma di creazione artistica prodotta dall’Occidente medievale o in esso circolante.” And where are the articles on quarries, and marble? But a six-volume *Enciclopedia Archeologica* is in preparation.

mere 47 appear under the rubric “Islamica, rapporti con la cultura.” Similarly the Acanthus colloquium in 1990⁴⁹ devoted less than 10% of the 398-page publication to the most attractive, accomplished and innovative examples, namely those of Islam in the West.⁵⁰ In another field, an excellent colloquium on spolia would have profited from a full Islamic dimension.⁵¹ Perhaps things are changing: Antiquity, with its world scope, devoted space to a “Focus on Islam” in its 2005 issues.

Terminology often carries too much baggage. This enquiry generally ignores the over-used terms renaissance and renovatio which, as I have hinted, are often retro-fitted wishful thinking. It would also be helpful to un-invent the term romanesque, which in terms of typology is much too broad, and promises much more than it delivers in terms of Roman-relatedness. The term obscures the innovations (often marble-related) which distinguish many of the buildings of the period it covers, and corrals within the “club of Rome” structures (especially in Pisa, Lucca and Venice) which are startlingly new—and Roman only in some construction techniques, and in their re-use of materials in marble and other stones. The perspective provided by our Mediterranean view⁵² will help demonstrate that such structures are in competition not only with each other but also with prestige structures of their trading and warring partners in Byzantium and Islam. So let us observe that some church façades built between 1000 and 1200 might be part-inspired by Roman triumphal arches (as well as by the scenae frontes of theatres), just as some contemporary sculpture is inspired by Roman sarcophagi. We can then examine them from the point of view of antique column-shafts, capitals, bases and veneer, and attempt to match these with newly-made and cheaper materials when original antiquities were lacking. In the later Middle Ages, antique relief sculpture is sometimes reflected in new productions, such as Nicola Pisano’s pulpit in the Baptistry (from sarcophagi around the Duomo), or Frederick’s Gate at Capua (from keystone busts in the amphitheatre). In both cases inspiration is certain, but we can ask the same question for sculpture as for architecture. Are the exemplars imitated solely for aesthetic reasons? Or do such imitation and re-use carry messages?

⁴⁹ *Acanthus Colloquium*, passim.

⁵⁰ Cf. *Capiteles Corinthios*.

⁵¹ Poeschke, *Antike Spolien*.

⁵² Abulafia, David, ed., *The Mediterranean in History*, (London 2003), for a broad overview; see especially the editor’s “What is the Mediterranean?” 11–27.

Some good studies have been written on some aspects of marble use in Islam, Europe and Byzantium. It takes its rightful place in Gülru Necipoglu's admirable 2005 *The Age of Sinan: Architectural Culture in the Ottoman Empire*, and readers will find plentiful examples in my bibliography. But much remains to be done for points east. Mediaeval western authors frequently display their interest in marble and its beauties,⁵³ yet the Mediterranean see-saw finds a reviving and expanding Carolingian Europe far behind Islam in building achievements, importing luxury goods from the Islamic world, especially ceramics, textiles and marble. For few Islamic cities (Córdoba and Damascus are exceptions) saw the periods of rapid population growth which helped obliterate ancient monuments in Europe, the more so since many such cities were founded in new locations. Consequently we can tour Islamic lands today to see what Rome abroad really looked like. But we must remember that what we see are often the skeletons of discards—limestone columns, figured sarcophagi and the rest—left behind when the shining marble columns and veneers were removed for mosques, palaces and churches.⁵⁴

Population increase, laziness, cost-accounting and building with antiquities

The imbalance in marble use was partly due to an imbalance in town-based population. Population in the early mediaeval West is much lower than in Antiquity, and fewer people meant bad building maintenance of an often grandiloquent building stock, little reconstruction, and no quarrying. There is a very low incidence of new building, except in prestigious locations such as Rome, Ravenna or Ephesus, where re-use of antiquities flourishes.⁵⁵ Cities shrink, trade declines, and luxury goods are scarce. But re-use follows the cadence of population, and after the Millennium the very rise of population levels eventually destroys the source materials, just as the use of the same materials had destroyed the “source” buildings.⁵⁶ In many cases this was laziness or convenience,

⁵³ Weigel, Thomas, “Spolien und Buntmarmor im Urteil mittelalterlicher Autoren,” in Poeschke, *Antike Spolien*, 117–51; and from Weigel's useful overview of sources we must assume that “marble” meant old stock, even though this is seldom mentioned.

⁵⁴ Siraj, Ahmen, “Les villes antiques de l'Afrique du nord à partir de la description de Jean Léon l'Africain,” *L'Africa Romana* IX, 1991, II, 919–38. See 927: Leo (1485–1554) notes inscriptions in several locations where thus far none have been found.

⁵⁵ Leggio, Ida, “Valenza del reimpiego: il case di Efeso,” in Lavan Luke, & Bowden, William, eds., *Theory and practice in late antique archaeology*, (Leiden 2003), 359–81.

⁵⁶ Ward-Perkins, Bryan, *From Classical Antiquity to the Middle Ages. Urban public building*

because cost-accounting demonstrated how cheap re-use was compared with quarrying and transport costs. Hence we find Venice still spoliating Pola (conveniently on the sea) at the end of the 15th century.⁵⁷ Town improvement (involving the demolition of walls and the driving or widening of roads through the urban fabric to introduce light, air, health, and sanitation) was the big killer in the 19th and 20th centuries, symbolized by Mussolini with a pickaxe (and an agenda) helping demolish large tranches of mediaeval Rome so as to get down to those important, imperial layers. But it also happened in North Africa, where El-Atrun was being quarried for road-building materials in the 1950s.⁵⁸ Before the Second World War, impatience with mediaeval layers joined disdain for re-used materials, seen as a sure sign of decadence. Louis Bertrand, writing about the Byzantines at Dougga, is typical.⁵⁹ In other words, post-antique building using classical materials were viewed until recently as awkward and barbaric.

In Moslem lands in the earlier Middle Ages, in contrast to Christian Europe, populations rise, settling in sometimes newly-founded cities, or profiting from existing local materials, such as Gafsa⁶⁰ and Hims, the latter paved and with fountains by the 9th century.⁶¹ The rise in population produced from the 7th to the 11th centuries “a prodigious increase in the variety of consumer goods,”⁶² and this prosperity sometimes included a passion for often grand-scale building. For centuries

in *Northern and Central Italy A.D. 300–850*, (Oxford, 1984), 203ff.: “Spoliation and reuse of unwanted buildings.”

⁵⁷ Letts, Malcolm, ed., *The pilgrimage of Arnold von Harff Knight from Cologne, through Italy, Syria...* [in 1496–9], (London 1946), 74–5: “on the right hand outside the town is an ancient and splendid palace built of great stones [i.e. theatre of Julia, of which only the hole it left in the hillside now remains]. Thiry men could not move one of the stones from its place... the Venetians are now causing the palace to be broken up and are building their palaces in Venice therewith.”

⁵⁸ *Christian monuments of Cyrenaica*, 232, for a coastal road from Marsa Susa to Derna.

⁵⁹ Bertrand, Louis, *Les Villes d'Or: Algérie et Tunisie romaines*, Paris 1921; cited in Pringle, Denys, *The defence of Byzantine Africa from Justinian to the Arab Conquest: an account of the military history and archaeology of the African provinces in the sixth and seventh centuries*, (Oxford 1981), 6: “la hâte avec des matériaux d'emprunt... ces bâtiments parasites et misérables, qui symbolisent en quelque façon le rétrécissement de l'Empire arrivé à l'extrême période de sa décadence.”

⁶⁰ Fagnan, *Afrique septentrionale*, 69–71 for a description of her ancient remains.

⁶¹ E.g. Al-Baladuri 206, writing of Hims; or Al-Ya'qubi (d.897?) writing of fountains and paved streets in Gafsa; cf. Wiet, G., ed., “Description du Maghreb en 276/389 extrait du ‘Kitab al-Buldan,’” (Algiers 1962), 17. Aleppo has had a public toilet near the Khan al-Sabun, fitted out in marble, since the 12th century.

⁶² Citarella, Armand O., *Il commercio di Amalfi nell'alto Medioevo*, (Salerno 1977), 38.

Islam led, and Europe followed. Much of our period is too early for any scholarly study of population in Europe; but Ibn Khaldun (born 1332), in his *Muqaddimah* (chapters 3 & 4), explains the mechanics of the rise, fall and ruination of cities, and the place of marble therein.⁶³ Dynasties rise and fall, and “the monuments of a given dynasty are proportionate to its original power.”⁶⁴ In other words, the Middle Ages thought it natural to measure power via monuments.

Knowledge and utility of the past

In many areas of knowledge, the past was imbued in mediaeval times with recognised authority.⁶⁵ The builders of mediaeval structures surely knew that much of the material they were using was originally pagan or Early Christian, although probably in many cases not which was which. If they had such knowledge, would they have cared? Of course, the waters are muddied by the Christianisation of the Empire, the building of churches which in construction and decoration followed the general style of pagan basilicas, and the continuation under the Byzantine Empire of nearly the same range of monumental activities of pre-Christian days—hippodromes and theatres, basilicas and baths, statues and mosaic floors, sarcophagi, coins and metalwork. The only modes which drop almost out of sight are narrative relief sculpture (monumental and otherwise), and 3D sculpture. There are attested early examples of pagan statues and reliefs being hammered to negate their numen, and it is not known when the practice ceased. An easier method was somehow to ‘convert’ such statues.⁶⁶

Here, architectural members are probably more “innocent” than free-standing sculpture. Except for the (exceptional) case of Constantine furnishing his new capital from the treasures of the Empire, I know of no evidence for the deliberate re-use of such pagan sculptures (of any dimensions) when known to be pagan. Free-standing Christian

⁶³ dvd_ibn_khaldun_extracts.doc.

⁶⁴ *Muqaddimah*, Book 3.16; on the web in Franz Rosenthal’s edition at <http://www.muslimphilosophy.com/ik/Muqaddimah/>.

⁶⁵ Sansterre, Jean-Marie, *L'autorité du passé dans les sociétés médiévales*, (Rome 2004), passim.

⁶⁶ Franzoni, Claudio, “‘Presente del passato’: le forme classiche nel medioevo, in Castelnovo, Enrico, & Sergi, Giuseppe, eds., *Arte e Storia III* (Milan 2004), 329–59; 341–2 for a table of reuse of images; 339–47 on the “conversio” of images.

sculpture of any kind is of course rare before the 11th century, so we might tentatively posit a lack of interest in the form. Again, although there were certainly plenty of pagan sculptures above ground throughout the Middle Ages, they do not appear as so much as a blip on the radar. Antique architecture is a different matter, and there are several examples of Christian inscriptions added to converted temples to underline their new purity. The most prized element of pagan and ruined Christian structures was their columns, which were precious enough to be re-used even when severely damaged. Thus churches in almost any Italian town (especially from Rome to points south, and further north on the seaboard), and any early mosque in Syria or North Africa, will demonstrate sometimes painstaking efforts to patch old columns, to match them carefully (as for example at S. Agnese fuori le Mura in Rome).⁶⁷ Frequently, bases and impost blocks have to be introduced to disguise the fact that disparate shafts have been employed. Sighting along the bases of the nave columns of SM in Trastevere, Rome, or along the capitals of Pisa Duomo, proves the point. That marble was indeed precious is demonstrated, as Deliyannis observes, by the use of that term (or indeed “very precious”) to modify the noun “marble” every time such patronage is mentioned in Agnellus mid-9th century Book of Pontiffs of the Church of Ravenna.⁶⁸

There are also plentiful examples of the re-use of earlier Christian pieces, so that we might believe their careful incorporation into a new setting indicates at least the veneration of the Christian past (and not just a shortage of materials?). A good example are the transennae in S. Clemente, Rome. While we have no knowledge of just how old the re-builders believed these remnants of the Guiscard’s sack to have been, they occupy the same place of honour in the later basilica as they had done in the earlier (though why some of the splendid antique columns from the lower basilica were not put to use in the upper rebuild—structural reasons, perhaps?—we do not know. The display of 8th-century transennae in the 5th-century S. Sabina indicates that new pieces would also be carved to grace an existing setting. Of a nearby example, that of the building of S. Nicola in Carcere re-using

⁶⁷ Ciranna, Simonetta, *Spolia e caratteristiche del reimpiego nella Basilica di San Lorenzo fuori le Mura a Roma*, (Rome 2000), 102–5 & figs 95–8.

⁶⁸ Agnellus, *Pontiffs*, passim, and under “marmor” in the glossary.

standing antique column suites (and adding spectacular coloured shafts⁶⁹ from somewhere else for the nave), the most we can say is that the pre-existing structures did not frighten away the Christians. In this case we cannot even be definite that the mediaeval builders knew these were once pagan temples. Many such temples were converted into churches, not many in the earlier centuries, but later—when perhaps any folk-memory had vanished.⁷⁰

For mediaeval people, living in once-Roman cities, familiarity with Roman buildings was constant; they often lived in them, stored their grain or animals in them, and sometimes dismantled them for building materials. But with the cleared and sanitized archaeological sites in the West today, it is difficult to grasp that this was indeed the natural way to make use of the past. Elsewhere they still do: at Heraklea under Latmos (Turkey) the school playground is the Hellenistic agora with a lower storey of shops; the scenae frons of the theatre at Alabanda is part of the farmyard with the farm attached. In the same village the wall to the Moslem cemetery is made with Roman sarcophagus slabs; and a tomb-terrace has been converted into a wall by simply up-ending the sarcophagi.⁷¹ At Aizanoi, blocks and slabs litter the Roman river port, and many house and farm-walls are built of piled-up antiquities. At Uzancaburc, column drums make farmyard walls. In Bosra (Syria), the schoolchildren walk to school on the Roman *cardo*, and some of them live on it, remnants of its colonnade built into their houses. Elsewhere, scholars still do their work by studying farm walls, in which myriad inscriptions have been built.⁷² 200 years ago such cityscapes were common. At the ancient and still-inhabited city of Mut, Leake easily saw the plan of the ancient city: “Its chief streets and temples, and other public buildings, may be clearly distinguished, and long colonnades and porticoes, with the lower parts of the columns in their original places. Pillars of verd-antique, breccia, and other marbles, lie

⁶⁹ Bosman, Lex, *The power of tradition. Spolia in the architecture of St. Peter's in the Vatican*, (Hiversum 2004) 52–6 for the start of the conspicuous Christian interest in coloured marbles and granites.

⁷⁰ Marangoni, *Delle cose gentilesche*, 256–8 for Rome; 268ff. for an A-Z listing, mostly in Italy.

⁷¹ Fellows, *Travels*, 268: but much has gone, for Fellows found “the positions of four important gates are now marked by lines of sarcophagi on either side of the road, from the walls into the plains; those to the east and west extend for more than a mile.”

⁷² Levick, B., et al., *Monuments from the Aezanitis*, (London 1988): cf. the findspots for funerary stelae (cats 73–190) and doorstones (cats 191–532).

half-buried in different parts, or support the remains of ruined mosques or houses.”⁷³

Evidence, documentation and the search for meaning(s)

“But what did he mean by that?” Metternich’s immortal remark on the death of Talleyrand brings us an eternal truth, which is that not all actions necessarily have meanings, whether they happen to be documented or not. The problem is complicated by re-use, so that we must wonder whether the definitions in the 1994 Venice Charter for the Conservation and Restoration of Monuments and Sites⁷⁴ can ever apply to structures with re-used materials, since a monument is “Imbued with a message from the past” (*Preamble*), and is “inseparable from the history to which it bears witness and from the setting in which it occurs” (*Article 7*). Movement surely destroys meaning, and except when faced by evidence it must always be a moot point whether the resurrection of elements into a new structure exudes any kind of osmosis from the old. Statements such as “Although in the past architects had sometimes reused older materials for economic reasons, from Constantine’s age on, such marble re-use came to signal continuity with Rome’s great past” would be more comforting were they supported by coherent and datable evidence.⁷⁵

Even in Antiquity, when we do have documents of some kind, it is not always easy to know exactly how to interpret them, so that frequently we might chorus with Westermann-Angerhausen that “The basis... in the written sources is more laconic than the conclusions drawn from them.”⁷⁶ Thus when Barbarius Pompeianus proclaims that he repaved Avella (Campania) “silicibus e montibus excisis non e dirutis monumentis advectis,” this could be a defensive response to the various edicts forbidding the pilfering of monuments, or even some reflection of local quarrying prosperity. Yet when Socrates Scholasticus complains of the repairs to the walls of Chalcedon subsequent to theft of sections of

⁷³ Leake, William M., *Journal of a tour in Asia Minor*, (London 1824), 108–9.

⁷⁴ Smith, Laurajane, *Uses of heritage*, (New York 2006) 88ff.

⁷⁵ Kessler, Herbert L., & Zacharias, Johanna, *Rome 1300: on the path of the pilgrim*, (New Haven 2000), 17.

⁷⁶ Westermann-Angerhausen, H., “Did Theophano leave her mark on Ottonian sumptuary arts?,” in Davids, Adelbert, ed., *The Empress Theophano: Byzantium and the West at the turn of the first millennium*, (Cambridge 1995), 244–64; see 245.

them by Valens (375 AD), “Whence it is that in the present day one may see in certain parts of the wall very inferior materials laid upon prodigiously large stones, forming those unsightly patches which were made on that occasion,” this is certainly in part an aesthetic response.⁷⁷ However, the Chalcedonians were far from happy with Valens, and hence the more likely to be hyper-critical. Needless to say, the Papacy knew plenty about pilfering.⁷⁸

But in the Middle Ages, Delogu half-jokingly describes the work of the Dark Ages historian as “a doubtful narrative, based on tendentious oral traditions and scanty written records.”⁷⁹ What is more, “textual history is a collection of half-truths waiting to be demolished by the “wrecking-ball” of archaeology.”⁸⁰ A more moderate position is surely reasonable: for example, Wickham tends to disbelieve narrative sources—“but I have presumed that they reflect a rhetorical field.”⁸¹ He is surely correct, and the label of “rhetoric” is not necessarily derogatory. Interest in tall stories and the miraculous is very old indeed; and many assertions in the flourishing “mirabilia” literature of the Middle Ages (and not just dealing with Rome) are certainly fantastical or provably incorrect, as with a persistent Islamic tradition about the Colossus of Rhodes.⁸² But they give us some insight into the workings of mediaeval minds, as does the tendency to mix both the original and the borrowed in written accounts just as in building.⁸³

⁷⁷ Both examples cited in Coates-Stephens, Robert, “Epigraphy as spolia—the reuse of inscriptions in early medieval buildings,” *PBSR* LXX 2002, 275–96; see 280.

⁷⁸ Lanciani, *Wanderings*, 260: Clement VIII Aldobrandini (1592–1605) had the two columns nearest the altar of the near-ruinous S Agnese (pavonazzetto and portasanta) removed for his family chapel in SM sopra Minerva.

⁷⁹ Delogu, Paolo, “Transformation of the Roman world: reflections on current research,” in Chrysos, Evangelos, & Wood, Ian, eds., *East and West: Modes of communication*, (Leiden 1999), 243–57; see 247.

⁸⁰ “A view which “has no room here,” writes Lavan in the introduction to his Lavan Luke, & Bowden, William, eds., *Theory and practice in late antique archaeology*, (Leiden 2003), XI.

⁸¹ Wickham: *Framing*, 8; and for rhetoric not accuracy, cf. Zanna, P., “Descriptiones urbium and elegy in Latin and vernacular in the early Middle Ages,” *Studi medievali* series 3, 32, 1991, 523–96; e.g. 573: for Hildebert of Lavardin, Archbishop of Tours (1056–1133), the city’s structures are immortal, “and cannot be erased by time, or any other natural or human forces”.

⁸² Conrad, Lawrence I., “The Arabs and the Colossus,” *JRAS* series 3 6 1996, 165–87: the multiple stories about its destruction by the Arabs can be traced to one unreliable source, so is a legend originating in an apocalyptic metaphor.

⁸³ Stansbury, Mark Jackson, *Collected works. “Spolia” and Latin textual culture, 500–900*, PhD (Boston College 2002), 1–6 for the disentangling of Bede, and 6ff for the relationship of such writing to architectural re-use.

One of the problems throughout this book is the dearth of contemporary documentation on matters architectural or even just constructional. Mediaeval drawings of antiquities are nearly non-existent (apart from those of the 13th-century Villard de Honnecourt). Accounts of antique cities and their monuments are in short supply, as are detailed accounts of contemporary buildings which we know re-use antiquities.⁸⁴ It is easy to guess why (in general terms) Justinian built Haghia Sophia or Charlemagne Aachen, but impossible to know why they used the materials they did. Even when we possess authored texts, we can derive little information from them about intention. So that in spite of his writings,⁸⁵ we do not know what Abbot Suger thought about marble use, column sources, or the aesthetics of re-use and their place in church regeneration—any more than it is clear just what Bernard of Clairvaux did not like about trends in sculpture in his age. If, as Del Bozzo affirms,⁸⁶ the same red and grey brecchia found in Haghia Sophia is also to be seen in fonts in S. Marco and in the Duomo in Lucera, was the sophisticated mediaeval connoisseur of marble expected to draw some message from such parallels? There is no evidence that this ever happened, although today's historians continue to read meanings without evidence. Indeed, for Tronzo "contemporary expectations with regard to the medieval frame of reference are too high," for mediaeval accounts never allude to the kind of national cultural and artistic characteristics which are commonly assumed today.⁸⁷ Trade documentation is much more plentiful,⁸⁸ but usually restricted to the specification of regular commodities, including slaves. Other legal documents tend to be very general and formulaic. The temptation is therefore to backtrack from the monuments to how the marble got there to embellish them. Pisa, for example, imported a lot of marble for her Duomo (and proclaims

⁸⁴ Gerola, Giuseppe, "L'architettura deutero-bizantina in Ravenna," *Ricordi di Ravenna Medioevale per il sesto centenario della morte di Dante*, (Ravenna 1921), 17–112; 21: bemoans "la quasi assoluta mancanza di fonti storiche dirette."

⁸⁵ Tronzo, William, "Regarding Norman Sicily: art, identity and court culture in the later Middle Ages," *RömJb* 35 2003/2004, 101–114; see 110: he makes "no reference to the cultural or historical origins of any of the precious vessels he acquired." The Treasury did have materials from Iran and Byzantium, so perhaps he was not equipped for such forensic enquiry.

⁸⁶ Del Bufalo, *Marbres de couleur*, 112.

⁸⁷ Tronzo, "Regarding Norman Sicily," 110.

⁸⁸ *Friedman, John B., & Figg, Kristen M., eds., *Trade, travel and exploration in the Middle Ages. An encyclopedia* (NY/London 2000), with a useful preliminary list divided by topic (e.g. architecture, crusades, economics, marvels & wonders, technologies).

its excellence in inscriptions) but, except in a few instances, we know little about where it came from. The same dilemma applies to Venice, where the gaudy trappings for S. Marco are simply not documented, their erection dated, or their beauty hymned—and this by a Republic which constructed a careful and largely spurious antique heritage for itself into which such a monument would surely have fitted very well. Historians therefore fall on what references have survived (such as Glaber’s “white mantle of churches” after the Millennium), and often force more out of phrases than they can plausibly bear. Furthermore, the earlier the monument we wish to study in the West, the less we find. For, as Brown points out, we know less about earlier mediaeval churches than we do about Middle Eastern ones, because in the West later, usually bigger, ones were often built on top, destroying evidence, so that “It is hard to conjure up the very real solidity of their original grandeur”⁸⁹—which takes us back to Wickham’s “rhetorical field.”

Archaeological remains are a type of document, of course. But although matters have certainly improved over the past few decades, there are many sites once capable of yielding important data—but which were dug before anyone had much interest in mediaeval archaeology. It was normal to dig down to the classical layers and ignore the rest. Hence we know less than we might about the mediaeval occupation of the Roman Forum, or of a large number of important Roman villa sites. Excavators at Haidra (Tunisia) rejoiced in the systematic excavation of two churches—but complained that before the Second World War five others were emptied without any record being made.⁹⁰ Given the natural superiority some archaeologists would like to assume as “scientists,” it is worth underlining that it is earlier archaeologists as much as the inhabitants who have destroyed the evidence for much of North Africa,⁹¹ as elsewhere. For our knowledge of Islamic layers of occupation over classical remains, the problem is particularly acute, with inadequate reporting, because once again diggers have been more interested in what was underneath.⁹² As David Kennedy writes, “so

⁸⁹ Brown, Peter, *The rise of Western Christendom: triumph and diversity, A.D. 200–1000*, 2nd ed., (Oxford 2003).

⁹⁰ Baratte, François, & Bejaoui, Fethi, “Églises urbaines, églises rurales dans la Tunisie paléochrétienne: nouvelles recherches d’architecture et d’urbanisme,” *Académie des Inscriptions et Belles-Lettres, Comptes Rendus*, Nov.–Dec. 2001, 1447–97; see 1454.

⁹¹ Leone, Anna, “Late Antique North Africa: production and changing use of buildings in urban areas,” *Al-Masaq*, 15.1, March 2003, 21–33; see 21.

⁹² Walmsley, Alan, “Production, exchange and regional trade in the Islamic east

much that is visible is inadequately recorded and analysed, and so much of what is recorded is unpublished.”⁹³ As a result too little is known about Islamic occupation at Baalbek, Miletus, Ephesus,⁹⁴ or Carthage, or for that matter about Delos, Delphi, Athens or Chios. Another, later Procopius would be very useful. His work, although that of a master of the topos, has proved accurate, and verifiable from other sources,⁹⁵ its explication involving an exemplary comparison of document and monument.⁹⁶ A study such as this should encourage art historians to take a broader view of their material, to recognize that historians and archaeologists approach re-use differently,⁹⁷ but that all approaches should be used in an area where hard evidence is so scarce.

An irony is that the general practice of stripping sites back to some “original” can be as misleading as trying to reflect their various transformations. So that the innocent tourist might view the Mausoleum of Augustus in Rome as a marbled site unchanged since the Emperor’s day, not realising that it has previously served as both bullring and auditorium.⁹⁸ Yet the difficulties sometimes facing archaeologists in dealing with the mediaeval centuries are starkly illustrated by a stan-

Mediterranean: old structures, new systems,” in Hansen, Inge Lyse, and Wickham, Chris, eds., *The long eighth century*, (Leiden 2000), 265–343; see 266.

⁹³ Kennedy, David, “The identity of Roman Gerasa: an archaeological approach,” in “Identities in the Eastern Mediterranean in Antiquity,” (Canberra 1997), *Mediterranean Archaeology* 11, 1998, 39–69; see 66; Vernoit, Stephen, “The rise of Islamic archaeology,” *Muqarnas* 14 1997 1–10.

⁹⁴ Ward-Perkins, Bryan, “Urban survival and urban transformation in the eastern Mediterranean,” in Brogiolo G.P., ed., *Early Medieval Towns in West Mediterranean*, (Mantua, 1996), 143–53; see 151: at Ephesus “the excavators who, at the beginning of this century, cleared the great Arkadiane and ‘Embolos’ colonnaded streets, did not even bother to excavate the shops which lined them on both sides.”

⁹⁵ Rouché, Charlotte, Carrié, Jean-Michel, & Duval, Noël, “De Aedificiis: le texte de Procope et ses réalités,” *L’Antiquité tardive* 8 2000, especially 81–104; Feissel, Denis, “Les édifices de Justinien au témoignage de Procope et de l’épigraphie”; 31–43; Rocques, Denis, “Les constructions de Justinien de Procope de Césarée”; and 59–66 Whitby, Michael, “Pride and prejudice in Procopius’ Buildings: imperial images of Constantinople.”

⁹⁶ Squatriti, Paolo, “Mohammed, the early medieval Mediterranean, and Charlemagne,” (review of *The Corrupting Sea*), in *Early Medieval Europe* 11.3 2002, 263–79; 274: notes “a basic shyness before textual evidence and preference for archaeology... perpetuates the old dualism between material and written evidence... archaeology, which is freer from the biases that pollute premodern writings and a better guide to ‘actuality’”.

⁹⁷ Esch, Arnold, *Wiederverwendung von Antike im Mittelalter. Die Sicht des Archäologen und die Sicht des Historikers*, (Berlin 2005).

⁹⁸ Riccomini, Anna Maria, *La ruina di sì bella cosa: vicende e trasformazioni del mausoleo di Augusto*, (Milan 1996).

dard volume on the Forum of Trajan, which can write little about what happened to the monument after its erection because the area was never comprehensively recorded.⁹⁹ Nevertheless, some evidence for re-use survives, as demonstrated by Meneghini's exemplary and detailed paper—a model for work in other areas;¹⁰⁰ and the Column of Trajan was given a “protection order” in 1162,¹⁰¹ so presumably spoliation was then rife.

Religious and secular uses of marble

If the Romans stamped the marble-map of the Mediterranean with its main contours, successive inhabitants were the ones who made (re-)use of those monuments, sometimes moving marble over large distances. Much of this was done to adorn mosques and churches. Any conspectus of the mediaeval Mediterranean makes it clear that quantities of marble were being moved around, from scavenging expeditions, in war and raids, and by trade, sometimes certainly to help fulfill state or dynastic aims.

One big problem is how many times some materials were (re-)used. In Islam, religious buildings sometimes got rebuilt, but just as often were simply enlarged, preserving and adding to the re-used antiquities. We know so little about marble use in secular Islamic buildings precisely because palaces were routinely pulled down, and the decorations (marble included) moved, sometimes over great distances. Some palaces lasted much less than a generation. In Christianity the problems bulks much larger because the vogue for big buildings after the Millennium usually obliterated earlier evidence. In any case, we have little information on earlier mediaeval palaces, although perhaps some were marble-rich like the 11th-century Casa dei Crescenzi in Rome, which mixes older

⁹⁹ Packer, James E., *The Forum of Trajan at Rome: a study of the monuments*, 3 vols, (Berkeley LA & London 1997), 3–29.

¹⁰⁰ Meneghini, Roberto, “Il foro ed i mercati di Traiano nel medioevo attraverso le fonti storiche e d'archivio,” *Archeologia Medievale* XX 1993, 79–121; see 90: by the 11thC there were a *calcararius* and a *sassore* in the area—proof positive of spoliation. Such lime-burners were very common in mediaeval Rome—more so than elsewhere in Italy. For the context cf. Meneghini, *Edilizia pubblica*, introduction.

¹⁰¹ De Bouard, A., “Gli antichi marmi di Roma nel medio evo,” *Archivio della Reale Società Romana di Storia Patria* XXXIV 1911, 239–45; see 241 note 1: the Column should “ad honorem . . . totius populi romani integra et incorrupta permaneat.”

with some contemporary carving.¹⁰² It has sometimes been assumed (for example, for Pisa) that columns and capitals from the earlier churches were used in their replacements; but we must balance that against well-documented examples of large and gleaming churches pulled down to build even better ones.¹⁰³ With secular re-use, we labour under the problem of not knowing much about what palace architecture looked like in Western Europe between Diocletian and Avignon, even if we are a better informed about Constantinople. The lineaments of the palace at Aachen are known, but neither the size nor the materials would have impressed a contemporary Muslim prince. Indeed, putting on one side the Lateran and the structures on the Palatine Hill in Rome, or the Great Palace in Constantinople, we should bear in mind that the term “palatium” generally refers to the status of the inhabitant, and offers no certainty about the nature of its architecture. With civic architecture we are arguably on firmer ground, and can suggest from surviving exemplars that walls and gates were ornamented to evoke either the glories of Rome or the adopted glories of the city in question (Milan, Capua), precisely because we have documentation of some kind. But the matter is vague: at Spello, for example, the central of the three figures in the Porta Consolare is female—so more likely to be taken for the Virgin than for a tutelary deity.

But what is marble?

Whoever first defined the city as “energy transformed into culture” might well have been thinking of the effort and expense expended to use marble. The stone is highly prized because it takes polish, and reveals myriad colours and patterns—the very geology of its beauty.¹⁰⁴ It can be sharply carved and usually wears well, unlike some limestones.¹⁰⁵ It has associations with the Roman (and then Byzantine) empire which were sometimes appreciated. Yet one problem since Roman times is

¹⁰² Barbanera, M. & Pergola, S., “Elementi architettonici antichi e post-antichi riutilizzati nella c.d. Casa dei Crescenzi: la ‘memoria dell’antico’ nell’edilizia civile a Roma,” *BullCom* 98 1997, 301–328.

¹⁰³ Mosques also re-re-used marble, as in Ulu Camii (1579) at Tarsus, where the marble surely came from an earlier mosque.

¹⁰⁴ dvd_but_what_is_marble.doc. Antonelli, Fabrizio, & Lazzarini, Lorenzo, “Genesi e classificazione delle rocce: principi generali,” in Lazzarini, *Pietre e marmi antichi*, 11–32.

¹⁰⁵ Cf. sculptures on the façade of S. Michele, Pavia.

that there is no clear and watertight definition of marble. Alabaster and onyx, porphyry and granite are not marbles, but they are indeed precious stones and—like some varieties of limestone—can take a high polish. “Mosul marble,” the stone used for the Nineveh bas-reliefs, and the quarries for which were operating in the 10th century,¹⁰⁶ is alabaster.¹⁰⁷ The same vagueness continues today.¹⁰⁸ Throughout the Middle Ages, limestones often got called “marble” and, since the ancient authors praised Paros as excellent marble, much marble was incorrectly attributed to that island, even in the Old Testament,¹⁰⁹ although it was far from the most popular stone.¹¹⁰ Travertine is also mis-identified. Even in the 16th century, Pierre Belon tells us the Third Pyramid was built of “a kind of marble called basalt, and harder than iron,” by which he means the facing, which he mis-identified.¹¹¹ Magister Gregorius is equally vague, correctly identifying vessels outside the Pantheon as porphyry, but also the Vatican Obelisk as of the same material, whereas it is granite.¹¹² Hence (and echoing the confusion), this book adopts a latitudinarian approach to marble classification, while recognizing that references to Parian etc. might sometimes derive from enthusiasm rather than knowledge.¹¹³ As a working definition, then, marble is a stone which will take a polish.

¹⁰⁶ Al-Muqaddasi, *Best divisions*, 117.

¹⁰⁷ Mitchell, T.C., & Middleton, A.P., “The Stones Used in the Assyrian Sculptures,” *Journal of Cuneiform Studies*, Vol. 54, 2002 (2002), 93–98.

¹⁰⁸ <http://www.worldstonex.com/en/marble.asp>: “In commercial terms, marble is any crystalline rock composed predominantly of calcite, dolomite or serpentine, having 3–4 hardness, which can be excavated as blocks and can be sawn into marble slabs and marble tiles... Compact, dense, recrystallized limestone that take a polish is also classified as marble in trade practice and may be sold as limestone or as marble.”

¹⁰⁹ Fischer, Moshe, “‘...on Parian pillars’ (The Book of Esther 1:6): bible, midrash and real marble in the ancient Near East,” *Journal of Jewish Studies* 50.2 1999, 235–45.

¹¹⁰ Lazzarini, Lorenzo, & Sangati, Cristina, “I più importanti marmi e pietre colorati usati dagli antichi,” in Lazzarini, *Pietre e marmi antichi*, 73–100, for maps, lists and a catalogue, which gives period of use and typology of usage.

¹¹¹ Belon, Pierre, *Voyage en Egypte de Pierre Belon du Mans*, (Paris 1547), 115r. And cf. Fermanel, Gilles, et al., *Le voyage d’Italie et du Levant*, (Rouen 1670), 427, who describes the stone as “great blocks of brown marble spotted with red and white.” The pyramid is in fact built of limestone but with a veneer in its lower levels of red granite and black granodiorite—not basalt!—from Aswan.

¹¹² Osborne, John, ed. & trans, *Master Gregorius: The Marvels of Rome*, (Toronto 1987), caps 21, 29.

¹¹³ As with the work of Abbot Hugh (1186–1200) at Lincoln: L-B *England*, 2366–7; a poem adds jasper and black marble: 2372–3. #2482: it seems unlikely that the marble unearthed at Llanthony Abbey (Monmouth) really was Parian. The work of

By extension, we must also pay some heed to imitation marble, either in paint or in stucco, both of which might indicate a desire for the real thing but an inability to find it or pay for it. Thus at S. Vincenzo al Volturno, the 9th century rooms have dadoes “painted in imitation of panels of polished stone revêtement, with diagonal undulant veining... This recalls the polished marble revêtement of ancient Roman buildings, and of the more splendidly appointed early Christian churches.”¹¹⁴ Such substitution was common,¹¹⁵ even in marble-rich environments such as Pomposa, where one of the monastery rooms has highly unlikely-looking painted “precious” marbles for the dado. Stucco¹¹⁶ was another material that could imitate marble, not least because powdered marble was often one of its ingredients. It was probably as much used by the West¹¹⁷ as in Islam,¹¹⁸ and extensively so from the Baroque when megalomaniac-sized churches could be built of gleaming ‘marble.’¹¹⁹ Often, the marble veneer provided colour and gloss, while the stucco above provided relief sculpture, as in S. Vitale at Ravenna, in the Abbey of S. Pietro at Civate, or in S. Salvatore at Brescia. At Cividale del Friuli figures as well as vegetal friezes are made in stucco, but normally only decoration, as in S. Salvatore in Brescia.

Roger (1154–81) at York was “pariis structuris et marmore distinctam:” cf. #5003. But cf. Gramaccini, Norberto, & Raff, Thomas, “Iconologia delle materie,” in Castelnovo, Enrico, & Sergi, Giuseppe, eds., *Arte e Storia* III (Milan 2004), 414–16 for further apposite quotes.

¹¹⁴ Mitchell, J., “Literacy displayed: the use of inscriptions at the monastery of San Vincenzo al Volturno in the early ninth century,” in R. McKitterick, ed., *The uses of literacy in early mediaeval Europe*, (Cambridge 1990), 186–225; see p. 191.

¹¹⁵ E.g. Bianchi, Alessandro, *Il restauro della cripta di Anagni*, (Rome 2003), figs 199, 209, 211–14: 12thC–13thC panels of “marble,” “alabaster,” and “porphyry” framed by strips of “onyx” and alternate panels of “opus sectile.”

¹¹⁶ Cagnana, *Archeologia dei materiali da costruzione*, 123–54: I leganti, gli intonaci, gli stucchi.

¹¹⁷ Peroni, Adriano, “La ricomposizione degli stucchi preromaniche di S. Salvatore a Brescia,” *La chiesa di S. Salvatore in Brescia*, II, (Milan 1962), 231–315 for a broad survey.

¹¹⁸ Marcos Pous, Alejandro, “Resúman sobre el relieve de estuco en España desde la época tardoromana a la prerománica,” *Atti del 8 Congresso di Studi sull’arte dell’alto medioevo II*, (Milan 1962), 128–46—includes the Mezquita, Madinat, Alcazaba de Málaga.

¹¹⁹ Colli, Dante, et al., *La scagliola carpigiana e l’illusione barocca*, (Modena 1990), especially 111ff. to 143, where techniques of construction and restoration are discussed.

Geographical and chronological span of this book, and its layout

In geographical span, the Mediterranean neatly delimits the study, because the reach of Greece and Rome marble-wise diminishes with distance from the sea and navigable rivers. Seaside and riverside cities are built in marble taken from quarries the utility of which likewise depends on sea communication, although we shall discover that marbles from difficult-to-reach quarries owe some of their cachet to that very fact—"The fossil whims of three centuries of Emperors," as Mons Porphyrites has been called. The marble-re-using centuries could find their treasures in such cities, and conveniently transport many of them largely by water. Again, the spatial dimension entails cultural diversity, since the Romans populated Africa and Syria and Spain as well as Asia Minor with buildings.

In chronological span, this book must begin with the Romans (ANCIENT AND EARLY CHRISTIAN EUROPE AND BYZANTIUM), and then proceed with Constantine's marble hymns to the Imperial past, when the weight of the past governs and perhaps overbalances contemporary aesthetic achievements. Constantine was far from the first to use earlier marble, but he was the first to make a big, far-flung and very influential splash with Christian marble architecture, so it is natural to begin this book with the man who commissioned the first forest-of-columns, Old S. Peter's. We examine the traditions—and materials—laid down with the move to Constantinople, but with Ravenna remaining as an object-lesson and marble-store in the Italian peninsula. We then stand back and look at the mechanics of QUARRYING, TRANSPORT AND PREPARATION OF MARBLE IN THE MIDDLE AGES in order to assess the conditions under which the materials were quarried, moved and polished. An important element in our story is LOOTED AND TROPHY MARBLE, which attempts to estimate the other side of the commercial mirror, as it were. Before getting down to detail, THE MARBLE HIT PARADE: MARBLE MEMBERS BY TYPE AND DESTINATION investigates which types of marble members were popular, and when, why and in what kinds of buildings. Chapters on specific areas of Europe and Islam follow, beginning with BYZANTIUM and then moving to the monuments the Moslems first built, EARLIER ISLAM. How did Europe react to spectacular and often large Islamic buildings? I address this question in the frankly speculative KING, POPE, EMIR AND CALIPH: EUROPE AND THE ISLAMIC BUILDING BOOM, before examining ITALY AND SICILY, and EGYPT, LATER SYRIA AND SELJUK AND OTTOMAN TURKEY.

Finally, since it would be unwieldy to deal separately with the Early Christian period in these countries, the chapter on FRANCE AND CHRISTIAN SPAIN surveys them from Antiquity to the late Middle Ages.

It would be neat to suggest that the Middle Ages came to an end as the desirable materials ran out, and it is certainly the case that the Italian Renaissance/Baroque conspicuously does not display recognizably re-used pieces. But although the best had perhaps already been re-used, the change is either a matter of aesthetics, as when Raphael's shop simply re-cut what was needed,¹²⁰ or when making some historicising point, as in the re-re-use of old column-shafts in New S. Peter's, or in Borromini's restructuring of S. Giovanni in Laterano. Although the quarries had been open for centuries, however, and in spite of the rise of antiquarianism (which sees re-used materials as objects of admiration rather than re-use) there was still a brisk trade in ancient materials in the 17th century, and indeed an enhanced market in exotic columns and veneers to furnish Baroque chapels.

In short, this book will survey the considerable and continuing scavenging throughout the Mediterranean between the 7th and the 15th–16th centuries, with a contest for marble between the West and Islam, the Mamluks and the Ottoman Empire. The Empire won, and may have helped fuel a re-invigorated Western taste both for newly-cut marble and re-use of exotic marbles, dating from the 16th century, by which time the Ottoman Empire was sitting on the main supplies. The natural chronological endpoint of the book is really the Mamluks in Egypt, because they were the penultimate dynasty of Islam to use marble antiquities extensively and colourfully (Islamic Cosmati, so to speak). Their Ottoman conquerors so retained the taste for marble that they just about cleared the Eastern Mediterranean of them, as well as triggering the re-opening of some Roman quarries to feed their thirst for gigantism. Our terminal markers might be the new S. Peter's and the Fatih: both consume huge quantities of antiquities, but these are no longer displayed as such, being recut to look new. A basic argument is that Europe was well aware throughout our centuries of what Islam was doing architecturally as well as militarily, one certain and continu-

¹²⁰ Bauer, Franz Alto, "Roma in epoca carolingia," in Buranelli, Francesco (intro), **Carlo Magno a Roma*, (Rome 2001), cat. 26 for an 8th–9thC slab of transenna, 110 × 109cm, with arms of Nicholas V on the verso—found reused in the pavement of the Stanza della Segnatura.

ing link being trade; so that the Mediterranean remit of the series of which this book forms a part should help us to view European and Byzantine architecture from outside, as it were, where the verde antico is always greener.

CHAPTER TWO

ANCIENT AND EARLY CHRISTIAN EUROPE AND BYZANTIUM

The City of Rome from Augustus to Constantine

The use of marble rather than wood or local stone involves organisation, skilled workmanship and great expense,¹ as well as dedication on the part of rich collectors.² It is a deliberate choice over cheaper and locally available materials. Its value therefore makes it suitable for re-use. The Greeks re-used and reworked it,³ and classical Greece may have used more coloured marble (such as the Chian marble altar at Delphi) than we know about—certainly, the “Treasury of Atreus” at Mycenae had marble columns and decorations. In Rome its use is desirable, but far from necessary, since there were quarries both inside and around the city. None was of marble, but travertine could be quarried nearby,⁴ and was probably considered marble-like because it layered in interesting patterns, and could take a polish. Local supplies of tufo plastered and painted to imitate marble were a standard late Republican decorative technique, and it was during the Roman Empire that the use of real marble first developed on a quasi-industrial scale to feed the city of Rome. Large quantities were imported, stockpiled, used, and written about,⁵ often for buildings named after

¹ Mauzy, Craig A., *Agora excavations 1931–2006. A pictorial history*, (Athens 2006), 42ff. for the reconstruction of the Stoa of Attalos, from finding the marble to carving and erecting it; in the mid-1950s; 51: an Ionic capital (either single or double) took 45 work-days to complete, and cost \$700 for materials and labour; a Doric capital took 18 work-days, and a complete Doric column (shaft, capital and fluting) cost \$1000; an upper cornice block with lion’s head took 50 work-days.

² Bounia, Alexandra, *The nature of classical collecting: collectors and collections 100 BCE–100 CE*, (Aldershot 2004).

³ Schmaltz, Bernhard, & Salta, Maria, “Zur Wiederverwendung attischer Grabreliefs klassischer Zeit,” *Jbuch DAI* 118 2003, 49–203.

⁴ Heiken, Grant, Funicello, Renato, & De Rita, Donatella, *The seven hills of Rome: a geological tour of the eternal city*, (Princeton 2005).

⁵ Friedländer, Ludwig, *Roman life and manners under the early empire*, II, (London 1909), 189ff. for use of marble, and fundamental material on the sources. Vasari’s “General Introduction” to architecture starts with, and is very largely devoted to, a consideration of stones and marbles he recognizes; I.53, that to use porphyry, it is necessary to use old stock “e di frammenti antichi e di rocchi di colonne et altri pezzi.”

individuals.⁶ This is at least in part because it made the city a luxuriously coloured place, as examination of (for example) the Forum of Augustus and its reconstructions makes clear.⁷ In other words, it was snobbery: for since granite is the most common rock, and veneers well, the use of marble (and granite) from distant parts is aesthetic exoticism.⁸ Indeed, data from elsewhere suggests that marbles-from-afar is a practice that might be confined to the Rome⁹ and the sophisticated centres of Provence.¹⁰ Marbled architecture, often donated as evergetism by rich citizens as well as emperors,¹¹ was seen by the Romans as the very symbol of Empire, symbolizing permanence, demonstrating enormous wealth and communicating power.¹² For example, Palestine was a region without marble, so the point of importing marble was to mark constructions as Imperial, not provincial art.¹³ Particular marbles may have conveyed focussed political messages.¹⁴ To achieve this, and

⁶ Meadows, Andrew, & Williams, Jonathan, "Moneta and the monuments: coinage and politics in Republican Rome," *JRS*, 91 2001, 27–49; see 44ff., for a practice established under the Republic, such as the Basilica Aemilia (160s BC?) or the Porticus Octavia 168 BC).

⁷ *De Nuccio, Marilda, & Ungaro, Lucrezia, eds., *I marmi colorate della Roma imperiale*, (Venice 2002), 108ff. for reconstructions.

⁸ —witness the replacement shafts for S. Paolo fuori le Mura, from Monte Orfano (Gravellona, Piedmont: cf. http://www.mergozzo.it/turismo/index.php?option=com_content&task=view&id=23&Itemid=49).

⁹ Williams-Thorpe, Olwen, "A thousand and one columns: observations on the Roman granite trade in the Mediterranean area," *OJA* 27 2008, 73–89; see 86: "In regions where granite column quarries are absent (Cyprus, Israel, and Libya (Leptis Magna), proximal sources in the eastern Mediterranean were used exclusively." And cf. fig. 8 for primary use of the various granites, plus secondary reuse in first millennium AD.

¹⁰ Bowman, Alan, Garnsey, Peter, & Rathbone, Dominic, editors, *The Cambridge Ancient History: Volume 11, the High Empire, AD 70–192* (Cambridge 2000), 475: although there were quarries at Glanum and Saint-Béat (only material from the latter being distributed beyond its region)—"Nevertheless, the marble used for the pavements and high quality facings of public and private monuments were for the most part imported from Italy, Greece or Africa."

¹¹ *Veyne, Paul, *Le pain et le cirque. Sociologie historique d'un pluralisme politique*, (Paris 1976), for a wide-ranging survey; cf. especially 477–693 on *L'Empereur et sa capitale*.

¹² Schneider, Rolf M. *Bunte Barbaren: Orientalenstatuen aus farbigem Marmor in der Römischen Repräsentationskunst*. (Worms 1986); Gullini, Giorgio, "L'architettura e l'urbanistica," in Bernard Andreae et al., eds., *Princeps urbium: cultura e vita sociale dell'Italia romana*, (Milan 1993), 419–735; see 556–81, and 516–48 for "Tra 'utilitas' e 'luxuria.'"

¹³ Fischer, Moshe L., "Figured capitals in Roman Palestine: marble imports and local stone. Some aspects of imperial and provincial art," *Palestine Exploration Quarterly* 121 July/Dec. 1989, 112–32. Ibid., *Marble studies*, 231–65: "Roman Palestine and the imperial marble trade system."

¹⁴ Fant, J.C., "Augustus and the city of marble," in Schwoerer, M. ed., *ASMOSIA IV* (Bordeaux 1999), 277–80: e.g. the 20-foot column of Numidian giallo antico erected

unlike the Greeks (who were generally happy with local material), the Romans brought it in great variety,¹⁵ and in great quantity (wrecks have been found carrying over 150 tons)¹⁶ from the farthest reaches of the Empire.¹⁷ And the more exotic the marbles the better for, in Story's formulation, "Coloured marbles were valued not simply for their aesthetic impact but because they provided a 'material map' of the Roman Empire and, when used in Rome and its provincial capitals, a physical statement of the conquest of distant lands and peoples,"¹⁸ while columns "advertised the extraordinary technological competence and reliable infrastructure of the empire,"¹⁹ as can be seen from those undertakings using great shafts from Mons Claudianus.²⁰ The fact that a taste for marble spread throughout the Empire is crucial for the ways in which it was re-used during the Middle Ages. Indeed, it seems to have been the only weighty commodity to have traveled large distances, and to have been imported even when local materials were to hand.²¹ Bowman cites the case of Glanum and Saint-Béat in southern France, both of which had quarries—but nevertheless, "the marble for high-quality buildings still came largely from Italy, Greece or Africa."²² Even

to mark the site of Caesar's pyre is connected with his quadruple triumph; Pensabene, Patrizio, "Il fenomeno del marmo nel mondo romano," in *De Nuccio & Ungaro, eds., *I marmi colorate*, 3–67, including the mechanics of extraction and distribution.

¹⁵ Clayton Fant, J., "The Roman imperial marble quarries at Portus," in Waelkens, Marc, Herz, Norman, & Moens, Luc, eds., *Ancient stones: quarrying, trade and provenance: interdisciplinary studies on stones and stone technology in Europe and Near East from the prehistoric to the early Christian period*, (Louvain 1992), 115–20, for an overview of imports.

¹⁶ Auriemma, Rita, *Salentum a salo: forma maris antiqui*, 2 vols, (Galatina 2004): II.41–2 for the Torre Sgarrata wreck, 160/70 tons of closely-packed marble: 18 sarcophagi and 23 blocks (latter alabastro microasiatico, white Thasos); II.183ff. for brief overview of "Marmi e naves lapidariae."

¹⁷ *Lintz, Yannick, Decrouez, Danielle, & Chamay, Jacques, *Les marbres blancs dans l'antiquité*, (Geneva 1991) for overview of locations, quarrying, lifting and transport, economics, and erection.

¹⁸ Story, Joanna, et al., "Charlemagne's black marble: the origin of the epitaph of Pope Hadrian I," *PBSR LXXIII* 2005, 157–90; see 163. The point echoes Schneider, *Bunte Barbaren*.

¹⁹ Kinney, Dale, "Roman architectural spolia," delivered at the symposium *Rome: the tide of influence* on 28 April 2000, on the web at www.aps-pub.com/proceedings/1452/Kinney.pdf, 143.

²⁰ Maxfield, Valerie A., & Peacock, David P.S., *Survey and excavation: Mons Claudianus 1987–93, II, Excavations Part I*, (Cairo 2001), 429–33 for a list.

²¹ Leptis Magna, for example, has an adjacent limestone quarry—but all the marble is imported, as at Sabratha.

²² Bowman et al., *The High Empire, AD 70–192*, 475, 727.

in Asia Minor, nearer the quarries, marble was expensive to use, and coloured marbles prized.²³

This fatal attraction for marble was laced with the ironies of death and survival, and its introduction to Rome was, of course, the fault of the Hellenistic Greeks, and of the poisoned chalice that was the gifting of Pergamon to Rome, helping to encourage a thirst for luxury that ran counter to simple Republican virtue. Not only were artists and whole marble workshops sent to Rome, but the Romans left large quantities at Pergamon, as a kind of historical artefact.²⁴ In Athens, the Romans acquired not only the city but sometimes “clothed” themselves as ancient Greeks by appropriating bronze and marble statues dating from the 470s through to the 1stC BC and cheekily re-inscribing the pedestals with their own names—instant heritage, as it were.²⁵ (This also happened at Aphrodisias).²⁶ After Pydna, Aemilius Paullus took over a tall marble pedestal at Delphi, removing the statue of Perseus and replacing it with one of himself, “for it was meet that the conquered should make room for the conquerors.”²⁷

It is conceivably from the East—present-day Greece and Turkey—that the Romans were attracted to the idea not only of houses with coloured-veneer walls (as at Ephesus),²⁸ but also of luxurious city walls, incorporating marble blocks. Yet there is a lacuna in our knowledge because, as Coates-Stephens observes, the Aurelian walls (270ff.) are “undervalued and little studied”—curiously so for this largest of all Roman projects (after Hadrian’s Wall)—and problematic because none of the gates Aurelian built has survived, being replaced by Honorius and Arcadius. These replacements do indeed contain and display many antique blocks,²⁹ and sometimes marble (especially Porta S. Sebastiano),

²³ *Barresi, Paolo, *Province dell’Asia Minore: costo dei marmi, architettura pubblica e committenza*, (Rome 2003), 94–108 for marble types, 291–7 for coloured marble, and 301–573 for a catalogue of buildings.

²⁴ Kuttner, Ann, “Republican Rome looks at Pergamon,” *Harvard Studies in Classical Philology* 97, *Greece in Rome: influence, integration, resistance* 1995, 157–78, 160–1, 166–7.

²⁵ Shear, Julia, L., “Reusing statues, rewriting inscriptions and bestowing honours in Roman Athens,” in Newby, Zahra, & Leader-Newby, Ruth, eds., *Art and inscriptions in the ancient world*, (Cambridge 2007), 221–46.

²⁶ Smith, R.R.R., “Late antique portraits in a public context: honorific statuary at Aphrodisias in Caria, AD 300–600,” *JRS* 89 1999, 155–189; see 159ff.

²⁷ Plutarch, Aemilius Paullus, 28.

²⁸ Waelkens, Marc, “Carrières et marbres en Asie Mineure,” *Les Dossiers d’archéologie* 173, 1992, 22–9; see 25 for such sheets still in situ.

²⁹ *Coates-Stephens, Robert, “Le ricostruzioni altomedievali delle mura aureliane a Roma, in *MEFRMA* 111 1999.1, 209–25; 214 fig. 1 for early mediaeval remains in the walls.

and it is very likely that the originals did likewise, the more so since the Aurelian posterns which survive do indeed have older travertine surrounds.³⁰ Much earlier, marble gates such as the Arco di Riccardo at Trieste (built into the walls in 33 AD), indicate a taste which might also have been apparent in other complete walls, long since demolished, and unrecorded in detail. Ancona's Arch of Trajan is of solid blocks of Proconnesus marble; the Porta de'Borsari at Verona is of shiny local limestone, and the (Parian?) marble Arch at Benevento demarcated the city from the countryside, and was incorporated into the late antique walls.

That Augustus found a city of brick and left one of marble is a saw well known to the point of over-use in the Middle Ages.³¹ Suetonius' phrase was none the less popular for being wrong: what Augustus did was to popularize the use of marble veneer (admittedly very thick veneer, sections of which can still be seen on the podium of the Temple of Mars Ultor in his Forum), leaving the main structures of brick. This process has been explored by experiment.³² The propaganda distorts the reality, for Augustus profited from the example of Julius Caesar, who built big and in marble, and enlarged harbour facilities at Ostia for the importation of foreign stones.³³ Some of Caesar's projects, such as the mile-long Saepta Julia, never got completed—but the intention may have helped the opening of quarries at Carrara. And it was both Julius Caesar and Augustus who employed marble in great variety,³⁴ and anointed it as an Imperial propaganda tool.³⁵ Even looking over

³⁰ Coates-Stephens, R., "Muri dei bassi secoli in Rome: observations on the re-use of statuary in walls found on the Esquiline and Caelian after 1870," *JRA* 14 2001 217–38; see 232–3.

³¹ MGH Landolfus sagax, *Additamenta ad Pauli Hist. Rom. Auct. ant.* 2, Lib. VII, 302, lin. 17: "avaritiae autem tam prerupte extitit, ut post hoc incendium, quam se Augustus ex latericiato marmoream reddidisse iactaverat, neminem ad reliquias rerum suarum adire permiserit"; or Paulus Diaconus, *Historia Romana* SS rer. Germ. 49, lib. VII, c.10, 61, lin. 31 "auxit ornavitque Romam aedificiis multis isto glorians dicto: urbem latericiam reperi, relinquo marmoream."

³² Ball, Larry F. "How did the Romans install revêtement?" *AJA* 106, no. 4 (2002): 551–74. Favro, *Urban image*, 184–5 for a table of materials used in Augustan building.

³³ Favro, *Urban image*, 67–8.

³⁴ Ganzert, Joachim, & Kockel, Valentin, "Augustusforum und Mars-Ulter-Tempel," in Hoffer, Mathias René, ed., *Kaiser Augustus und die verlorene Republik*, (Mainz 1988), 149–99; 166 for the types of marble, plus colour plate 2.

³⁵ Cunchillos, Miguel Cisneros, "El mármol y la propaganda ideológica: el modelo del foro de Augusto," in Remesal Rodríguez, José, Simón, Francisco Marco, & Pina Polo, Francisco, eds., *Religión y propaganda política en el mundo romano*, (Barcelona 2002), 83–104.

the rooftops of Rome one could not avoid marble. Claridge surmises that the bronze beams stolen by the Barberini from the Pantheon must have been needed to support the original roof of the portico, surely marble tiles.³⁶ This is reasonable, given that at least some parts of the palaces on the Palatine had marble roof tiles, several of which are still to be seen on that hill.

It was at the beginning of the Empire that users' often contradictory attitudes to this precious material were formed.³⁷ It seems as if the old Roman antipathy to (and love of) Greek art was easily transferred to marble, with the same Janus-like love-hate dichotomy. Thus in parallel with the lengths gone to in order to imitate such a costly item when funds were tight, two main themes permeate opinion: the magnificence and luxury of marble, but at the same time (the mirror image) its danger to old-fashioned Roman morals. For example, the monument to Julius Caesar in the Roman Forum, an early use of giallo antico from Tunisia, met with controversy, and was destroyed.

Juvenal sees the quarrying of marble as unnatural and indeed un-Roman, and graphically illustrates the effort of quarrying and the dangers of shifting the material.³⁸ Pliny tut-tuts³⁹ at the speed of the material's introduction,⁴⁰ although it remained a luxury.⁴¹ He bemoans marble overkill under the aedileship of Agrippa who, as well as providing 500 fountains, "erected 300 statues of marble or bronze, and 400 marble columns, and all this in the space of a single year!"⁴² But he is outvoted by the enthusiasm of Roman poets.⁴³ There were indeed

³⁶ Claridge, Amanda, *Rome*, (Oxford, 1998), 204.

³⁷ *Pensabene, Patrizio, "La decorazione architettonica, l'impiego de marmo e l'importazione di manufatti orientali a Roma, in Italia e in Africa (II–VI D. C.)," in Giardina, A., ed., *Società Romana e Impero Tardoantico, III: Le merci, gli insediamenti*, (Rome & Bari 1986), 285–429; largely about capitals, but also with material on sarcophagi.

³⁸ Satire III.18ff., *Quid Romae Faciam?* "For if that axle with its load of Ligurian marble breaks down, and pours an overturned mountain on to the crowd, what is left of their bodies?" Horace likewise sees marble from Dokimeion as a device to attract envy (*Odes*, 3.1.41–8).

³⁹ Edwards, Catharine, *Writing Rome: textual approaches to the city*, (Cambridge 1996), 96ff. for "The city of marvels," with 102ff. on luxury.

⁴⁰ NH XXXVI.v.44ff.

⁴¹ Gnoli, *Marmora*, 5 notes how few marble floors have been found at Pompeii.

⁴² NH XXXVI.xxiv.121–123.

⁴³ *Bedon, Robert, "Stabunt et Parii lapides, spirantia signa. Les roches décoratives chez les poètes latins," in Chardron-Picault, P., et al., eds., *Les roches décoratives dans l'architecture antique et du haut Moyen Âge*, (Paris 2004), 369–86.

some near-unbelievable examples of conspicuous expenditure on marble, such as Marcus Aemilius Scaurus' temporary festival theatre in 63 BC, with a scenae frons of 360 columns (marble, next glass, then gilded planks for the top order), the marble ones supposedly 38 feet high. Scaurus took off the columns to his house, the local sewerage contractor demanding indemnity against possible damage to the drains caused by their weight.⁴⁴ So in Rome, marble as the epitome of *luxuria* is a direct challenge to morals,⁴⁵ while the substitution of cheaper marbles for expensive varieties, and the painting of marble to make it look more expensive, are the epitome of trickery.⁴⁶

Marble in the later Empire

The Middle Ages had few such qualms, because marble was largely used to decorate the house of God. They could of course read the Roman texts but, like inhabitants of the Empire itself, they could also study the buildings on myriad coins. Paulinus of Nola earlier adapts the topos slightly to boast of his improvements at Nola: "After the use of manure, [the interior courtyard] is now adorned with marble; after growing cabbages, it now grows Parian basins; after shining with filth, it is now radiant with streams of water."⁴⁷ Much later, an early eleventh-century abbot of Cluny "built a cloister with brand new marble columns (novissimis), "de quo solitus erat gloriari, ut jocundi erat habitus, 'invenisse se ligneum et relinquere marmoreum.'"⁴⁸ The same before-and-after comparison is made for the work of Abbot Gauzlin

⁴⁴ NH XXXVI.ii.4ff.

⁴⁵ Carey, Sorcha, *Pliny's catalogue of culture: art and empire in the Natural History*, (Oxford 2003), 92.

⁴⁶ NH XXXV.i.3; cf. and Seneca Ad Lucilium Epistolae Morales 115, 9: "we admire walls veneered with a thin layer of marble, although we know what it is hiding... superficial embellishment...".

⁴⁷ Kiely, Maria M., "The interior courtyard: the heart of Cimitile/Nola," *Journal of Early Christian Studies* 12.4 2004, 443–479; see 460: Carmen 28.266–78 composed by the year 404.

⁴⁸ Abbot Odilo, (c.962–1048), Acta SS Jan. 1: "Vbi etiam in nouissimis suis claustrum costruxit columnis marmoreis ex vltimis partibus illius prouinciæ, ac per rapidissimos Durentiæ, Rhodanique cursus non sine magno labore aduectis mirabiliter decoratum." Mortet, *Recueil*, 59 at S. Martial, Limoges, in 1063–1114: the seventh abbot Adhémar "Armarius quoque librorum copia adornavit; claustrum quoque marmoreum ipse fabricari fecit."

of Saint-Benoît (d.1029) who,” *Altaria etiam repperiens lapidea, effecit marmorea.*”⁴⁹

The cost, luxury and durability of marble made it eminently reusable⁵⁰—so marble spoliation is probably as old as its fresh-from-the-quarry use, as indeed was more routine work after natural or other disasters.⁵¹ In Catalonia, for example, at Terrassa, an Augustan marble is already re-used in an inscription from the first half of the 2nd century.⁵² In Rome, it seems likely that the Baths of Caracalla (212–16) and Diocletian (306) used earlier granite shafts, since there was no activity at the quarries by the later date.⁵³ Indeed, it looks as if second-best marbles were used as early as Severan times, in the Forum at Leptis Magna.⁵⁴ Fant notes that the Palatine Nymphaeum of the Domus Transitoria and also the Domus Aurea were stripped of their exotic marbles, the latter before serving as foundations for the Baths of Trajan built above; and that people returned to Pompeii after the eruption to remove panelling, just as the Hadrianic house under the Baths of Caracalla was stripped before the bath foundations were laid.⁵⁵ Public buildings and temples were converted into churches, their marble with them.⁵⁶ Marble floors

⁴⁹ Mortet, *Recueil* 128, 38.

⁵⁰ Overview in Del Bufalo, *Marbres de couleur*, 87–144.

⁵¹ Fincker, M., & Sillières, P., “À propos du remploi d’éléments architectoniques lors de reconstructions antiques: quelques exemples à Baelo Claudia,” *Hommages à C. Domergue*, (Pallas, 50, 1999), 263–283: see 271–2: the Sanctuary of Isis, e.g. was rebuilt after a mid-3rdC earthquake.

⁵² Mayer, Marcos, Alvarez, Aurelio, & Rodá, Isabel, “Los materiales lapideos reaprovechados en construcciones medievales en Cataluña. La ciudad de Barcelona y su entorno,” *Artistes, artisans et production artistique au Moyen Age II*, (Paris 1987), 529–58; see 535.

⁵³ Williams-Thorpe, Olwen, et al., “Magnetic susceptibility variations at Mons Claudianus and in Roman columns—a method of provenancing to within a single quarry,” *Archeometry* 38 1996, 15–41.

⁵⁴ Ponti, G., et al. in ASMOSIA 2007, “Leptis Magna and the marble trade: new acquisitions about the provenance and use of white and coloured marbles.” See synopsis: “a conspicuous absence of very important Imperial marbles, frequently used in other areas of the Empire: there is no evidence for Egyptian porphyries, Mons Claudianus granite, Giallo Antico, Africano and Portasanta marbles for the production of column shafts, although these types are present in very limited quantities as revetment slabs of which very few fragments survive.”

⁵⁵ Fant, J. Clayton, “Rome’s marble yards,” *JRA* 14 2001, 167–98; see 195.

⁵⁶ Valenti, Marco, *Trasformazione dell’edilizia privata e pubblica in edifici di culto cristiani a Roma tra IV e IX secolo*, Tesi di laurea, Rome La Sapienza, 2003. Online at http://www.santamelania.it/arte_fede/valenti/indice.htm.

were sometimes removed before the structure fell, while at others columns survived for centuries.⁵⁷

Both the luxury and the marble-substitution had long lives throughout the Empire (as of course did the colour purple and its glossy incarnation, porphyry),⁵⁸ which increased in popularity for various reasons,⁵⁹ and where there was an increasing emphasis on colour, with the best going to Imperial buildings.⁶⁰ At Spalato (Dalmatia), for example, excavation has found that extensive use was made both of marble and of mosaic (both stone and glass cubes). Magnificence did not stand still: Janes sees the move from plain to multicoloured marble floors to opus sectile as one from cheapish marble to exotica accompanied by exquisite craftsmanship.⁶¹ However, shortages of readily-available high-quality material (*not* those in specifically Imperial stockpiles) by the 4th century are the tipover, when re-use takes over from fresh-quarried stone.

The Arch of Constantine, built from re-used blocks, displayed different varieties of marble, as well as sculpture of illustrious forbears.⁶² It has been argued that the Pentelic marble of some of the friezes (perhaps from Trajan's Forum) confirms "the particular esteem in which this material was held under the Empire,"⁶³ and that the variety of marbles displayed was "a means of maintaining the luster of the late imperial city's heritage in the physical record of its dismantled and recomposed

⁵⁷ Mari, Zaccaria, & Fiore Cavaliere, Maria Grazia, "Rivestimenti marmorei da una villa tiburtina e da quelle imperiali di Arcinazzo e Subiaco: esempi tipologici ed episodi di spogliazione," *AISCOM VII* (Ravenna 2001), 427–48; at the Villa di Traiano floors were spoliated before the structure fell (p. 431); the Villa of Nero stripped of its wall-veneers to lowest level; a document states that after an earthquake (1159 or 1181) columns and marbles taken in 1227–43 for rebuilding cloister of S. Scolastica—perhaps the earthquake had made the materials easier to spoliare.

⁵⁸ *Lucci, Maria Luisa, "Il porfido nell'antichità," *Archeologia Classica* 16 1964, 226–71. *Bessone, Luigi, "La porpora a Roma," in Longo, Oddono, ed., *La porpora: realtà e immaginario di un colore simbolico*, (Venice 1998), 149–202. *Malgouyres, Philippe, & Blanc-Riehl, Clément, *Porphyre. La pierre pourpre des Ptolémées aux Bonaparte*, Louvre exhib 2003–2004, (Paris 2003): 11–22 for material & techniques; 26–65 for antiquity, and 66–89 for the Middle Ages.

⁵⁹ *Lucci, "Il porfido nell'antichità," 237–52.

⁶⁰ Pensabene, "Il fenomeno del marmo nel mondo romano," 3–67; see 9ff., 45–63.

⁶¹ Janes, Dominic, *God and gold in late antiquity*, (Cambridge 1998), 31–2, 109.

⁶² Panella, Clementina, "Tecniche costruttive e modalità di inserimento dell'apparato decorativo," in P. Pensabene and C. Panella, eds., *Arco di Costantino tra archeologia e archeometria*, (Rome, 1999), 43–73: 48ff. for the materials used.

⁶³ Lazzarini, Lorenzo, et al., "Determination of the provenance of marbles used in some ancient monuments in Rome," in Herz N., & Waelkens, M., eds., *Classical marble: geochemistry, technology, trade*, (Dordrecht 1988), 399–407: see 405–6.

monuments.”⁶⁴ For our purpose (given the lack of triumphal arches in the Middle Ages), the Temple of the Deified Romulus (d.307) in the Roman Forum, with its older columns and capitals, entablature and (Severan?) doorframe, is a more useful example.⁶⁵ It does not look out-of-place as a church entrance, for it was converted to part of SS. Cosmas and Damian in 527. In Spain, and perhaps also in France, the same occurred. Sidonius emphasises the absence of exotic marbles from his Avitacus villa (Puy-de-Dôme)⁶⁶—from which (with other examples) Chavarria Arnau concludes that Sidonius and his friends were still high-status, but living in conditions not as luxurious as a century previously.⁶⁷ But Sidonius’ lament could equally be opportunistic inverted snobbery, since marble must have been scarce in the Puy-de-Dôme. The point here is that Sidonius names all the marbles (and imitations) he may be happy to be lacking, and the whole inclination of his words is “literary” rather than straight reportage. Or perhaps the earth is just getting old, as suggested by Zosimus’ comment on the Senate House at Constantinople: “marble of such colours, as are not now to be found in any quarries.”⁶⁸ In Tunisia, where floors and walls were often of mosaic tesserae, and marble veneer, concepts of status might have been even longer-lasting. Some very splendid complexes survive, such as the House of Lucius Verus at Thysdrus. Some villas were apparently refurbished at the beginning of the 7th century, such as the Casa dei due Caccie at Clipea (today Kelibia, conveniently by the sea), and some villas at Carthage were certainly still in use⁶⁹—models, perhaps, of splendid living to inspire Moslem palace-builders. Further West, on the Atlantic coast of Morocco, the Roman remains have disappeared, probably into mosques and palaces. Al-Idrisi (1173–1251) writes that “Sala is today

⁶⁴ Joseph D. Alchermes, “Spolia in Roman cities of the late Empire: legislative rationales and architectural reuse,” *DOP* 48 1994, pp. 167–78; quote from 170.

⁶⁵ Cima, M., “La decorazione architettonica,” *Il cosiddetto tempio di Romolo nel Foro romano*, *Quaderni dell’Istituto di Storia dell’Architettura* 26 1980, 103–20.

⁶⁶ *Epist* II.2: “...neither Paros nor Carystos, nor Proconnesos, nor Phrygia, nor Numidia, nor Sparta have contributed their diverse inlays. I had no use for stone that simulates a broken surface, with Ethiopic crags and purple precipices stained with genuine murex. Though enriched by no cold splendour of foreign marble, my poor huts and hovels do not lack the coolness to which a plain citizen may aspire.”

⁶⁷ Chavarria Arnau, Alexandra, “Considerazioni sulla fine delle ville in occidente,” *Archeologia Medievale* XXXI, 2004, 7–19.

⁶⁸ Zosimus (floreant early 6thC), *New History*, Book 5. Online at http://www.tertullian.org/fathers/zosimus05_book5.htm.

⁶⁹ Bullo, Silvia, & Ghedini, Francesca, *Amplissimae et atque ornatissimae domus: l’edilizia residenziale nelle città della Tunisia romana: schede*, (Rome 2003), 285–7, 80–3.

in ruins. Remains are to be found there, still standing, of monuments and imposing temples.” Ibn Abd Al-Mun’im notes it was on the edge of the sea, with “numerous antiquities, chateaux, vaults, etc” while at Tandia “much marble and large cut stones were [note past tense] to be found.”⁷⁰ But in Italy, palace-building and marble luxury was fitful.⁷¹ So we might think of marble as a kind of DNA of luxury, uniting the far-flung parts of the Empire, and binding Roman customs to some levels of fine living in the early Middle Ages—when, for example, there is still evidence for marble veneers in use in Switzerland.⁷²

“Beautiful new monuments replace ugly ruins”

Roman exertions from the first century BC onwards, following Hellenistic example, had developed cities throughout the Empire often predicated on the display of large quantities of expensive marble, where the careful grouping of prestigious buildings into ensembles which offered powerful messages—what Favro calls the “urban image.”⁷³ Nothing similar would be seen until the city beautiful was once again a priority, in Renaissance Italy—when ruins became beautiful again, and not just potential building materials.⁷⁴ But the Imperial building stock posed a problem for later centuries with lower urban populations. The maintenance of a host of luxurious buildings was an impossibility, in spite of brave attempts, and various regulations were introduced to deal with them.⁷⁵ A 364–7 AD inscription at Mactar (Tunisia) reads:

⁷⁰ Siraj, Ahmed, *L'image de la Tingitane: l'historiographie arabe médiévale et l'antiquité nord-africaine*, (Rome 1995), 109, 117.

⁷¹ *Augenti, Andrea, “Luoghi e non-luoghi: palazzi e città nell’Italia tardoantica e altomedioevale,” in Boucheron, Patrick, & Chiffolleau, Jacques, eds., *Le palais dans la ville: Espaces urbains et lieux de la puissance publique dans la méditerranée médiévale*, (Lyon 2004), 15–33; fig. 3 for phases of the Ravenna palace.

⁷² Morier-Genoud, Corinne, “Les placages de marbre au sein de la décoration de quelques édifices résidentiels en Suisse romaine,” *Les roches décoratives dans l’architecture antique et du haut Moyen Âge*, 2004, 299–316.

⁷³ Favro, *Urban image*, passim, and 252–80 for “A walk through Augustan Rome.”

⁷⁴ *Zimmermann, R., *Künstliche Ruinen. Studien zu ihrer Bedeutung und Form*, Wiesbaden 1989; 135–91 for *Ruine des Heils: Die Interpretation der Rom-Ruinen und die künstliche antike Ruine*; 155–71 for ruins and re-use; 136–43 for ruins in the Middle Ages.

⁷⁵ *Anguissola, Anna, “Note alla legislazione su spoglio e reimpiego di materiali da costruzione ed arredi architettonici, I sec A.C.–VI sec D.C.,” in Cupperi, Walter, ed., *Senso delle rovine e riuso dell’antico (Annali della Scuola Normale Superiore di Pisa: Quaderni 14)*, 2002, 13–29. Liverani, P. “Reimpiego senza ideologia: La lettura antica degli spolia dall’arco di Costantino all’età carolingia,” *Mitt DAI Römische Abteilung* 111 (2004), 383–434. Cf. 411ff. on re-use in the ancient sources.

“In the golden times, everywhere prevailing, of our Lords Valentinian and Valens, perpetual Augusti, what was derelict recovers stability, what was abandoned is renovated, beautiful new monuments replace ugly ruins.” Lepelley lists 332 inscriptions between Diocletian and the Vandal invasions proclaiming the erection or restoration of public buildings in Roman Africa. The intention of refurbishing the splendour of the monuments is made clear from two statue bases at Cherchel. These, underneath their original dedicatory inscriptions, and in late-period lettering, have the addition *translata de sordentibus locis*.⁷⁶ Cherchel might have been especially splendid: Ibn Hawqal, writing in 977, admired her marble statues and enormous buildings,⁷⁷ and there were still materials to be taken in the 12th century.⁷⁸ And Al-Edrisi was to remark at Agrigento that the importance of her monuments was testimony to her antique splendour,⁷⁹ so such rebuilding efforts did find later echoes.

Hence a basic fact for the theme of this book is of huge quantities of constructions employing marble either abandoned in the outreaches of a retreating Empire, or unneeded or unserviceable because of a declining population.⁸⁰ What to do with such a building stock, often of a monumental scale, usually brought on-site from far-away quarries, having been loaded on board ship, transported and then erected with great mechanical ingenuity by a large workforce? Complicated by the problem of earthquakes,⁸¹ there were three choices: let the buildings decay, maintain them in the form in which they were built, or dismantle them and use the materials to build something else—or “left ruinous, robbed out, or built over,” in Christie’s formulation.⁸²

Letting the buildings decay was the easiest option, but produced unsightliness, even if that very decay could sometimes be read as proclaiming the death of paganism and the triumph of Christianity, so that

⁷⁶ Lepelley, Claude, “The survival and fall of the classical city in late Roman Africa,” in Rich, John, ed., *The city in late antiquity*, (London 1992), 50–76; see 57 & 59.

⁷⁷ Ibn Hawqal, *Configuration*, I.73.

⁷⁸ Fagnan, *Afrique septentrionale*, 39–40: “a large town which is uninhabited, and where ancient ruins are to be found.”

⁷⁹ Al-Edrisi, *La géographie*, I, 86. He finished his book in 1154.

⁸⁰ *Christie, *From Constantine to Charlemagne*, 208ff. “The old in the new: spolia and new material language of towns”; for Marcian, Cassiodorus and various regulations.

⁸¹ These can protect collapsed structures from all but the energetic—witness the spectacular condition of the scenae frons reliefs and structure at Aspendos, disinterred in the last decades.

⁸² *Christie, *From Constantine to Charlemagne*, 97.

“new” means Christian and “old” means pagan.⁸³ Maintaining existing structures was an option only if they could be put to some use which fitted changing circumstances, such as turning theatres into fortresses (Arles) or amphitheatres into housing (Lucca).⁸⁴ Pagan temples were not often suitable for direct use as churches, but when there is such continuity, we can deduce nothing more than convenience, as with the already-mentioned S. Nicola in Carcere, the Pantheon, the colonnade at S. Maria in Cosmedin (all Rome); the Duomo at Syracuse (remodelled from a Greek temple); the conversion of a temple at Cori,⁸⁵ or indeed churches I & II at Sabratha.⁸⁶ And if Roman civic basilicas were themselves suitable, there are nevertheless few examples of actual conversion—Trier is one, where examples of frescoed “marble” survive.⁸⁷ Instead, the usual option was to dismantle the old to build in new styles which are part-inspired by previous structures and re-use many of their materials—as with the churches of mediaeval Rome. But we cannot think of the remains of classical monuments as a gigantic box of Lego, all the elements of which could be useful in new constructions. The chapter on the Marble Hit Parade will demonstrate that this is far from the case, and that only certain elements were popular, and then only during particular periods. Hence large quantities of classical marble elements were surplus to any mediaeval requirements, because they could not be re-cut for convenient re-use. For example, free-standing sculpture and figured bas-reliefs were almost totally neglected, and many ended up in the kilns because they were of white marble, which made the best lime.⁸⁸

⁸³ Hansen *Eloquence of appropriation*, 225–43: “To ‘Strip error bare.’ The rhetoric of transformation.”

⁸⁴ Greenhalgh, *Survival*, chapters 1, 2, & 6. For an excellent overview of one monument, cf. Rea, Rossella, “Il Colosseo. Distruzione e riuso tra IV e VIII secolo,” *MEFRMA* 111 1999.1, 183–95.

⁸⁵ Fiorini, C., & Palombi, D., “Un esempio di continuità edilizia: il tempio e la chiesa di S. Oliva a Cori,” *Rivista dell'Istituto Nazionale d'Archeologia* X, 1987, 91–128.

⁸⁶ Ward-Perkins, John B., & Goodchild, R.G., “The Christian antiquities of Tripolitania,” *Archaeologia* XCV 1953, 1–82; see 7–12 & 12–15; in the former columns of cipollino were taken from the S. Forum Temple or Antonine Temple, and the altar given a canopy of 2x cipollino and 2x red breccia shafts; Church II was “very roughly built of materials drawn from a large number of different monument.” See 22–4 for Church I at Lepcis, installed within the Severan Basilica.

⁸⁷ Lavin, Irving, “The ceiling frescoes in Trier and illusionism in Constantinian painting,” *DOP* 21 1967, 97–113; 110 for Trier as “a veritable new wave of classicism;” 111ff. for illusionism in imitation marble.

⁸⁸ As at Sardis, where 10th-century kilns in the Gymnasium have columns nearby

Damage or complete destruction by earthquakes was frequent, and sometimes the cause of abandonment or of the use of earlier materials to rebuild what could be saved. Unfortunately, we have no specific descriptions of damage caused by earthquakes in the Middle Ages; later ones provide useful comparanda, such as the 1759 one which caused quantifiable damage at Baalbek, estimated by Volney.⁸⁹ Evidence from inscriptions of building sites, including the term “ruina,” prove that re-use was sometimes induced by disaster, the needs of rebuilding, and perhaps reduced manpower,⁹⁰ any of which could lead to monuments being left in ruins for decades or more, or never rebuilt. When Al-Edrisi visited Cyrenaica in the mid-12th century, it was the past that impressed him, not the present, remarking that the ancient cities “were in a miserable state and contained only a few inhabitants, but the remains surviving gave one an idea of how things were and of the lustre of the past still distinguishing their names.”⁹¹ Much of the Christian splendour came from re-using earlier marble.⁹² At Berenice (also Libya), for example, excavations show that the 249 AD earthquake damage was left for a century and a half, in the meantime being ransacked for useable materials. The extraurban sanctuary of Demeter at Cyrene was destroyed in the 262 earthquake, and never rebuilt.⁹³ Further West, Christern believes earlier materials were used at Tebessa (Algeria) for aesthetic and iconographic as well as for practical reasons,⁹⁴ perhaps to compete with its temples, one of which was described in the 12th century looking “as if it had been built yesterday.”⁹⁵ Neverthe-

“where they had been dragged for conversion into lime:” Foss, Clive, *Byzantine and Turkish Sardis*, (Cambridge MA 1976), 74–5.

⁸⁹ Volney, C.-F., *Voyage en Syrie et en Egypte, pendant les années 1783, 1784 et 1785*, (Paris 1787), 222: at the visit by Dawkins/Wood in 1751, “they found nine great columns standing, and in 1784 I found only six. They counted 29 at the small temple, but only 20 remain today. It was the earthquake of 1759 which caused their fall.” But “Here nature is not the only agent of destruction. The Turks have helped greatly to damage the columns. Their aim is to retrieve the lead cramps which servent to join the two or three drums of each column. But these cramps serve their purpose so well that several columns have not become disjointed when they fell.”

⁹⁰ Lepelley, Claude, “L’Afrique du nord et le prétendu séisme universel du 21 juillet 365,” *MEFRA* 96 1984, 463–91.

⁹¹ Cited by Stucchi, S., *Architettura Cirenaica*, (Rome 1975), 561.

⁹² *Christian monuments of Cyrenaica*, 27–32.

⁹³ Stucchi, *Architettura Cirenaica*, 234–5, 333–4.

⁹⁴ Christern, J., *Das frühchristliche Pilgerheiligtum von Tebessa*, (Wiesbaden 1976), 167f. & plate 10.

⁹⁵ Fagnan, *Afrique septentrionale*, 90. And “in the middle of the city is a vast temple built with enormous marble columns, on the outside walls of which are displayed in

less, large basilican churches were certainly built from re-used stock. And although none of the late-antique legislation makes much of any aesthetic argument,⁹⁶ the Arch of Caracalla at Tebessa was built into the Byzantine walls (although column-shafts were also used as crude infill), and the Christian churches given prominent positions where temples once had stood. Christian churches could profit from such destruction, which offered high-quality cast-offs: thus Stucchi adduces earthquakes as a reason for re-use in Christian basilicas at Apollonia, Cyrene and Tocrá in the late 4th century, and also in the building of monumental fountains at later dates. Nor was such rebuilding mere patchwork: he observes that the worked faces of such monuments are always displayed, and sometimes reworked, always with skill, perhaps through love of the glorious past and a desire to restore it.⁹⁷ Earthquakes are frequent in Italy as well, with some churches solidly rebuilt following earthquakes, such as the new (1132) cathedral at Alife. This uses several earlier columns,⁹⁸ and it might be fruitful to discover somehow whether earlier monoliths were specifically prized in seismic zones, a little like polygonal walls in Greece.⁹⁹

Laws were promulgated to try and get structures refurbished or rebuilt, or ruins eradicated, and to stem the endemic, large-scale pilfering of marble. But they were confused and sometimes contradictory, as when the Theodosian Code¹⁰⁰ proclaims that maintenance or reconstruction is needed—and then that re-used materials may sometimes be used for public works. One sloppily worded *permesso* seems to admit a policy of *laissez faire*,¹⁰¹ while another 18 months earlier¹⁰²

the most surprising fashion every kind of animal, and which constitute, we are told, so many talismans.”

⁹⁶ Liverani, “Reimpiego senza ideologia,” 426.

⁹⁷ Stucchi, *Architettura Cirenaica*, 483; and cf. 558–9 & fig. 577, of the base of the minaret of the Sahnun Mosque at Agedabia (no longer extant), and “stato ritenuto a lungo un monumento romano.”

⁹⁸ Gambella, Angelo, *Monumenti Normanni: la Cattedrale di Alife*, at <http://www.mondi-medievali.net/pre-testi/gambella.htm>.

⁹⁹ Seismically, drums might have been preferable: cf. the Column of Marcus Aurelius in Rome, which underwent torsional movement and displacement, but is still standing.

¹⁰⁰ Online at <http://www.gmu.edu/departments/fld/CLASSICS/theod.html>.

¹⁰¹ Theodosius Public Works XV.1.36, for November 1st, 397, to Asterius, Count of the Orient.

¹⁰² XV.1.34, 24th March, 396: admonishing governors of provinces “muros vel novos debere facere vel firmitus veteres renovare.”

encouraged refurbishment. Theodosius (and then Cassiodorus)¹⁰³ surely viewed re-use as pious and artistic re-creation and not (as in Aldini's bleak assessment of the re-use of ancient marbles at Como) that "art-istry was lacking and materials were available."¹⁰⁴ Thus for Stansbury, "Piece by piece, the past was literally dismantled to create new objects, large parts of which are old: this is not simple destruction, but transformation."¹⁰⁵ Theoderic's motives were certainly political, but the twin epithets "amator fabricarum et restaurator civitatum" fit him well, and indicate the twin prongs of his activities.¹⁰⁶

Inevitably the glorious new monuments were built with materials from the once-glorious older ones, such as the stone of the Catania amphitheatre, together with "saxa in agris suis iacentia."¹⁰⁷ Monuments were frequently hijacked by governors, consuls or prefects (who often retrieved some of the elements by tunnelling),¹⁰⁸ and were regularly censured for building to their own glory.¹⁰⁹ But even such reproval is not necessarily any clear indication of antiquarianism, of concern for antique splendour. For although embargoes against new building, and such urging to restore old ones (sometimes both in the same decree: *Variae* XV.1.11) could well indicate a concern for the building stock rather than a desire to diminish it further, they could equally well be a statement of Imperial ownership, with the remains of the past the property of the Emperor. In either case, the impression that the State encouraged spoliation was widespread and long-lived.¹¹⁰

¹⁰³ On the web at <http://www.thelatinlibrary.com/cassiodorus.html>. and cf. O'Donnell, James J., *Cassiodorus*, ("Postprint" 1995), on the web at <http://ccat.sas.upenn.edu/jod/texts/cassbook/toc.html>.

¹⁰⁴ Aldini, Pier Vittorio, *Antichi marmi comensi*, (Pavia 1834), xviii.

¹⁰⁵ Stansbury, Mark Jackson, *Collected works. "Spolia" and Latin textual culture, 500–900*, Ph.D. (Boston College 2002); 6ff. for re-use; notes 7 note 17 that 13 of the 53 constitutions of the Codex Theodosianus prohibit new building until old buildings have been restored.

¹⁰⁶ *Saitta, Biagio, *La civiltà di Teodorico. Rigore amministrativo, 'tolleranza' religiosa e recupero dell'antico nell'Italian ostrogota*, (Rome 1993), 103–38. He even restored the theatre of Pompey: Cass. *Variae* IV.51.

¹⁰⁷ *Ibid.*, 113f.

¹⁰⁸ X.19.14.

¹⁰⁹ XV.1.15: "aliquid novi operis adripere, priusquam ea, quae victa senio fatiscerent, repararent." Alchermes, "Spolia in Roman cities," 176–8.

¹¹⁰ Trovabene, G., "Il reimpiego di marmi altomedioevali nel pulpito della Cattedrale di Modena," *Studi in memoria di Giuseppe Bovini*, 2 vols, (Ravenna 1989), 705–20; see 720, note 49: "utilizzo dei materiali di spoglio, autorizzati dallo stato stesso, nel corso del V secolo, purchè fossero di utilità pubblica e provenienti da edifici non più recuperabili."

Part of the answer to the confusion in such decrees seems to be that different cities were to be treated in different fashions, with Rome as a special case.¹¹¹ Not, of course, that Theodosius could stem the tide of marble pilfering and re-use, which depleted the building stock. Much remained, and this continued to be under threat, as can be deduced from the fact that in 458 the emperor Majorian (457–61) issued a law to protect the monuments: “the public buildings, in which the adornment of the entire city of Rome consists...the beautiful structures of the ancient buildings are being scattered...great things are being destroyed.”¹¹² La Rocca points out that Cassiodorus (*Variae* 7.5.5) says Theoderic wanted old materials restored to their former splendour, and new sections done to such a standard that “ab opere veterum sola distet novitas fabricarum.”¹¹³ She elegantly assesses Ravenna as being intentionally made to look new, and Rome to look old.¹¹⁴ However, Theoderic did import marble from Rome, which somewhat blunts the force of this argument.¹¹⁵ In other words, while always concerning himself with aesthetics (in part by removing ruins) Cassiodorus fits horses to courses: newness in Ravenna reflects contemporary Byzantium, while oldness in Rome suits such a venerable city.¹¹⁶ His program includes cleaning up veneers in Ravenna (*Variae* 1.1.2), importing columns etc. from perhaps Ostuni (Apulia),¹¹⁷ and raiding what sounds like a stockpile in Rome.¹¹⁸ Rather than to rob the monuments for spoliation, Theoderic’s wish is

¹¹¹ XV.1.19 of 376: a useful set of stipulations, which make clear just how widespread were the practices of buying up old monuments, tunnelling into foundations, having blocks recut so they looked newly quarried, or taking them from monuments still standing.

¹¹² Maas, Michael, *Readings in late Antiquity: a sourcebook*, (London & New York 2000), 25.

¹¹³ La Rocca, Cristina, “Public buildings and urban change in norther Italy in the early mediaeval period,” in Rich, John, ed., *The city in late antiquity*, (London 1992), 161–80; see 166.

¹¹⁴ La Rocca, Cristina, “Perceptions of an early medieval urban landscape,” in Linehan, Peter, & Nelson, Janet L., eds., *The medieval world*, (London 2001), 416–31; see 424.

¹¹⁵ But cf. *Variae* X.8 for a letter from Amalasuntha to Justinian requesting he send marble (proconnesian?) to Ravenna.

¹¹⁶ 7.13.1: “Romanam pulchritudinem non vigiliae, sed sola deberet reverentia custodire.”

¹¹⁷ 3.9.2; and especially big ones: 3.53.3.

¹¹⁸ 3.10.2: “marmora, quae de domo Pinciana constat esse deposita.”

to preserve Rome's monuments.¹¹⁹ This included restoring structures such as the Theatre of Pompey (*Variae* 4.51.3–4: already restored by Honorius) to their former glory—"redeant igitur civitates in pristinum decus" (8.31.7). Whether we can trust what Cassiodorus writes is another matter. Barnwell, for example, sees the *Variae* as a panegyric for Theoderic; and is suspicious that many of the documents are not genuine, "and were made up in order to present an idealised and, therefore, rather schematic illustration of the ways in which Ostrogothic administration worked and Gothic kings thought."¹²⁰ But there is no evidence and, since we are again in the realm of rhetoric, Barnwell's argument is impossible to confirm.

*The Transformation of the Ancient World*¹²¹

After the rebuilding or refurbishing efforts of late Antiquity, monumental building stagnated for several centuries in the West, enlivened by only a few exceptions. Marble transport and distribution from East to West declined and then stopped: for example, the supply of capitals, during the reign of Justinian.¹²² Conversely some quarries (such as those in the Pyrenees and Catalonia), once serving only local needs, produced for further afield.¹²³ In Italy, although we know from documents that marble was in use, and that there were men to work it, evidence of actual buildings, probably few in number, has yet to be found.¹²⁴ So although it may be argued that the classical tradition (which by definition must be continuous) is indeed sustained in manuscript illumination

¹¹⁹ 1.25.1 & 3: "quia de initiis praedicatio debetur invento, de custoditis adquiritur laudata perfectio... volumus maxime, quae urbis faciem videntur ornare. quis enim dubitet fabricarum miracula hac provisione servata et pendentī saxo tornatas camaras tegularum tegmine custoditas?"

¹²⁰ Barnwell, P.S., *Emperor, Prefects & Kings: the Roman West, 395–565*, (London 1992), 169.

¹²¹ No longer "collapse," for we are now politically correct: cf. Noble, Thomas F.X., "The Transformation of the Roman World: reflections on five years of work," in Chrysos, Evangelos, & Wood, Ian, eds., *East and West: modes of communication*, (Leiden 1999), 259–277—on the TRW project itself.

¹²² Betsch, William E., *The history, production and distribution of the late antique capital in Constantinople*, Ph.D. (UPenn 1977), 325.

¹²³ Pensabene Patrizio, "Transport, diffusion et commerce des marbres," *Les Dossiers d'archéologie* 173, 1992, 86–92.

¹²⁴ Wickham, Chris, "Early medieval archaeology in Italy: the last twenty years," *Archeologia Medievale* 26, 1999, 9–20; see 11.

and perhaps in figured ivories (such as the cover of the Lorsch Gospels), what evidence we have suggests that it does not apply in sculpture, or in architecture beyond a predilection for the forms of the Early Christian basilica. While more monuments were collapsing or being pilfered, one type survived and prospered in dangerous and uncertain times, namely the late-antique city wall. One fact of late antique life in cities was the need for protection, provided by walls usually made from re-used blocks, and with a shrunken footprint in comparison with earlier glory days. Several of the Gallic walls surely took their cue in the use of marble from the style of those at Rome, built at such a cost to earlier monuments.¹²⁵ Indeed, since the walls of Caernarvon are of a typology probably derived directly from Constantinople (but without any marble), it is easy to see how prestigious city walls could be influential—the more so since we know more about mediaeval walls between 500 and the Millennium than we do about (for example) churches, because so many walls survived into the era of photography.

Antiquities were often highly visible in such late-antique walls, certainly intentionally when they appear in patterns, as at Ankara. Their use in wall construction provided large quantities for recovery and yet more re-use in the later Middle Ages, when the population upturn coupled with new economic horizons meant, as Esch remarks, that the antique began to be measured by the cubic foot.¹²⁶ And the earlier the prosperity of any city, the earlier the marble got re-used, as for example at Tivoli, Rieti or Anagni.¹²⁷ Material was uncovered by expansion, often when building took place outside late-antique walls. This was where antique cemeteries were to be found, and hence many funerary antiquities were re-used in mediaeval walls (Pavia, Milan, many now in Castello Sforzesco), on view to all until 19th-century city improvements usually brought them down (only partly at Langres), and also with luck sent to museums (Dijon, Saintes, Narbonne, Modena), or without luck for road or railway hard-core. Some late antique walls are still standing (Le Mans) and some still display antiquities (Thessaloniki). At Lugo, the (largely funerary) antiquities have been extracted to the local museum.

¹²⁵ Espérandieu, Emile, *Recueil général des bas-reliefs de la Gaule romaine*, 11 vols, (Paris 1907–38), passim.

¹²⁶ Esch, Arnold, “Spolien. Zur Wiederverwendung antiker Baustücke und Skulpturen im mittelalterlichen Italien,” *Archiv für Kulturgeschichte* 51 1969, 1–64; see 31.

¹²⁷ Toubert, P., 1973 *Les structures du Latium médiéval. Le Latium méridional et la Sabine du 9^e siècle à la fin du 12^e siècle*, (Rome 1973), 660ff.

At Bergamo, the Baluarde di Valverde, in the Venetian fortifications, re-uses and displays several Roman architectural fragments, along with other post-medieval ones.¹²⁸ One index of the popularity of gleaming marble walls (in fact, usually limestone) is their appearance in mediaeval romances, which frequently refer to such structures as a cause of admiration, surely because they had seen some actual walls, as well as just imagined them.¹²⁹

Marble in Early Christian Italy

Apart from city walls, from the 4th century church-building was the only monumental growth industry, which took advantage of the large quantities of decaying or collapsed monuments¹³⁰ and mixed re-used with new-cut material.¹³¹ The first important and monumentalized site of pilgrimage in the Christian West, and surely designed as such,¹³² was Old S. Peter's in Rome, the greatest of several creations from antiquities.¹³³ It was built on a colossal scale, with 96 nearly 9m columns (88 in the main body of the church).¹³⁴ Those in the nave supported an architrave of about 240m, probably from Imperial stocks, balanced as far as possible, and conceivably demonstrating a respect for Impe-

¹²⁸ Poggiani Keller, R., ed. *Bergamo dalle origini all'altomedioevo: documenti per una archeologia urbana*, (Modena 1986), 149 & figs 149–51.

¹²⁹ Faral, E., *Recherches sur les sources latines des contes et romans courtois du Moyen Age*, (Paris 1967), 320ff.

¹³⁰ Excellent scene-setting in *Christie, *From Constantine to Charlemagne*, 15–71 for Sources and Contexts; 78f.; and cf. 94ff. for his three-phase development of Christianized Urban Space.

¹³¹ Brandenburg, Hugo, “Die Verwendung von Spolien und originalen Werkstücken in der spätantiken Architektur,” in Poeschke, *Antike Spolien*, 11–39. *ibid.*, *Ancient churches of Rome. From the fourth to the seventh century*, (Turnhout 2005) for overview with plans, elevations, reconstructions etc. Wirth, Gerhard, “Rom—Prolegomene zu einer Geschichte der antiken Stadt,” *Antikenrezeption, Antikenverhältnis, Antikebegegnung in Vergangenheit und Gegenwart. Eine Aufsatzsammlung*, I, (Stendal 1983), 39–100, for a richly referenced overview of the city and its changes into late antiquity.

¹³² Bauer, Franz Alto, *Das Bild der Stadt Rom im Frühmittelalter: Papststiftungen im Spiegel des Liber Pontificalis von Gregor dem Dritten bis zu Leo dem Dritten*, (Wiesbaden 2004), 149–170 for pilgrimage; 159ff. for the “monumentalization” of Old S. Peter's.

¹³³ Hansen, *Eloquence of appropriation*, *passim*.

¹³⁴ McClendon, Charles B., “The history of the site of St Peter's basilica,” *Perspecta* 25, 1989, 32–65; A good overview; 50ff. for the Constantinian basilica.

rial traditions.¹³⁵ In consequence it was much admired,¹³⁶ Al-Fida (1273–1331) noting that it was sheathed in marble, and with very large columns. Many of the materials were to be re-used a second time in the Renaissance: all the columns were punctiliously drawn by B. Peruzzi and B. da Sangallo, no doubt to calculate their possible (re-)locations.¹³⁷ Old S. Peter's, as the focus of Western Christianity, was to be a model for others, including the way it used the marble past.¹³⁸ Nor was this church Constantine's only creation. He erected other marble-rich constructions in Rome,¹³⁹ built S. Restituta at Naples with five aisles,¹⁴⁰ and developed an innovative typology at Trier and Ostia.¹⁴¹

In any terms, Old S. Peter's was a very large construction, and perhaps eschewed brick piers in favour of monoliths—96 of them, compared with 80 in the Basilica eventually called S. Giovanni in Laterano—so as to unite the civil basilica with the apsed hall. As Grimaldi observed, “the basilica was built hastily by Constantine in a brief period time. The capitals were partly complete, partly unfinished. Many bases were unlike the columns... The lintels were of large marble blocks which were taken from the circus, or from the ruins of another building...”¹⁴² Both the first S. Peter's and S. Lorenzo fuori le Mura made extensive use of older marble, and an especially diverse collection of architraves. Those in the Pelagian basilica at S. Lorenzo can be admired at eye-level, given the elevation of the presbyterium over the tall columns

¹³⁵ Pensabene, P., “Il reimpiego nell'età costantiniana a Roma,” *Costantino il Grande. Dall'antichità all'umanesimo* (Macerata 1993), 749–68; see 754–5, 761.

¹³⁶ Reinaud, Joseph Toussaint, ed., *Géographie d'Aboulfêda*, (Paris 1848).

¹³⁷ Carpicco, Alberto Carlo, & Krautheimer, Richard, “Nuovi dati sull'antica basilica di San Pietro in Vaticano,” *Boll. d'Arte* 93–4 1995, 1–70 and 95 1996 1–84; I.7 for a chronology, including marble refurbishments; II.28–9 for tables detailing the column-shafts; Arbeiter, Achim, *Alt-St. Peter in Geschichte und Wissenschaft: Abfolge der Bauten, Rekonstruktion, Architekturprogramm*, (Berlin 1988), 114ff. for detailed study of the column-shafts.

¹³⁸ Bosman, Lex, *The power of tradition. Spolia in the architecture of St. Peter's in the Vatican*, (Hiversum 2004), 19–56 for the original building; Brandenburg, Hugo, “Spolia ed elementi architettonici originali nella chiesa di S. Stefano Rotondo e nell'architettura tardoantica a Roma,” *CCARB* 41 1994, 543–572; Arbeiter, *Alt-St. Peter*, 223f.

¹³⁹ Liverani, Paolo, “L'edilizia costantiniana a Roma: il Laterano, il Vaticano, Santa Croce in Gerusalemme,” *Costantino il grande*, 74–81.

¹⁴⁰ Strazzullo, Franco, *Neapolitanae Basilicae S. Restitutae monumenta epigraphica*, (Naples 2001), 16: reduced to three to build the Angevin cathedral.

¹⁴¹ Bisconti, Fabrizio, “Basilicam fecit. Tipologie e caratteri degli edifici di culto al tempo dei Costantinidi,” *Costantino il grande*, 82–91.

¹⁴² Kinney, loc. cit., 27–9.

that flank it. We have Grimaldi's description of the collection in Old S. Peter's,¹⁴³ and a record of his distress as many valuable and inscribed pieces were destroyed in the process of constructing the new basilica.¹⁴⁴ Nevertheless, sufficient remains of ancient Rome for the tourists and archaeologists today (provoking the comment heard when overlooking the Forum, "I never realised the bombing was so severe"—for which I can vouch). Antiquities were used perhaps because they were cheaper than fresh-quarrying, and stockpiles because they were the only source for the necessary near-9-metre shafts and capitals to match.¹⁴⁵ In addition, famous barley-sugar spiral columns from Ephesus(?), all in re-use, adorned the altar,¹⁴⁶ as they still do the crossing of the new basilica. That the aim was to impress can be seen from some of the surviving re-used pilasters and columns, some of which sport large numbers of naked putti; six of the columns were added by Gregory III (731–41). Clearly, these were chosen for their beauty, or because they fitted; their iconography did not matter, although of course some of it could be Christianised.¹⁴⁷

Constantine's St. Peter's used even larger quantities of older marble than did the papal palace and church at the Lateran,¹⁴⁸ the palace apparently being much upgraded by Gregory III (827–44).¹⁴⁹ Relicts

¹⁴³ Lanciani, *Wanderings*, 98: "Grimaldi declares that no two consecutive ones were alike, and that some of them were inscribed with the names of Titus, Trajan, Galienus and others."

¹⁴⁴ Lanciani, *Wanderings*, 98–9. "Grimaldi says that many capitals of the columns supporting the nave had been carved out of blocks inscribed with historical records. He tried to save them from destruction, and caused some of the inscriptions to be sawn from the blocks; but while he was confined to bed with a touch of fever, the stonemasons took advantage of his absence to make use of the precious records for their own purposes." 101ff. for other deprivations.

¹⁴⁵ Pensabene, Patrizio, "Reimpiego e nuove mode architettoniche nelle basiliche cristiane di Roma tra IV e VI secolo," *Jahrbuch für Antike und Christentum*, Ergänzungsband, 20, (Aschendorff, 1995), 1076–1096.

¹⁴⁶ Ward Perkins, J.B., "The Shrine of St. Peter and Its Twelve Spiral Columns," *JRS* 42 1952, 21–33.

¹⁴⁷ Kinney, Dale, "Spolia," in Tronzo, William, ed., *St. Peter's in the Vatican*, (Cambridge 2005), 16–47.

¹⁴⁸ Kinney, loc. cit.: 12 grey granite, 4 red granite, 16 cipollino, 6 various. See 29: the re-use of antiquities "was a default virtue, as the breakdown of production in the imperial quarries impeded or precluded the provision—at least to the western provinces—of newly manufactured ornaments in non-Italian stones. In a context of industrial failure, the colonnades of St. Peter's were bricolage, in which the trophies of the old quarry system were recuperated and combined paradigmatically, rather than subordinated to the classical syntagma of the colonnade."

¹⁴⁹ LP II.81 Gregory III "Igitur post haec quae superius hedificata leguntur (viz.

of the first church are in the sculpture museum in the cloister of the Lateran. The Lateran Baptistery demonstrated how carefully-chosen marble and porphyry could be jigsawed together, albeit in a very small building, to create a new species of structure.¹⁵⁰ As Claridge observes,¹⁵¹ the porphyry columns for the entrance have been artificially lengthened by joining two shafts together, the mid-late 2nd-century architrave is very similar to that on Temple of Hadrian, and the eight porphyry columns in the rotunda are those that the *Liber Pontificalis* says were installed by Sixtus III. The adjacent church, S. Giovanni in Laterano, was many times its size, and itself also made use of older columns, of which 24 verde antico shafts are displayed today in Borromini's aedicules for the apostles down the nave.¹⁵² These aedicules, like the earlier tomb monuments that Borromini re-set in Baroque frames in the same church, are prized just like the great columns of the original S. Peter's, or like the Hadrian epitaph, or the earlier bronze inscription of Gregory II, consecrated 715, both in their baroque frames in the atrium of New S. Peter's. In effect, here as in the new S. Peter's, the refurbished church is simply too large to house such columns except as decoration. Hence the 17m shafts of the Temple of Antoninus and Faustina were not re-used, perhaps because there were only ten of them.¹⁵³

It was indeed the Papacy, living amidst the ruins of Rome and the basilicas which needed constant upkeep,¹⁵⁴ which was responsible for abstracting the best materials for their Church—and palace-building programs, so that their re-use of the antique was arguably symbolic.¹⁵⁵ The Papacy was in various ways the successor to the Roman emperors.

Lateran, and oratory of S. Lorenzo), de aedificiis iam dirutis et prae magnitudine temporum pene casuris quae infra palatium ab antiquis patribus videbantur esse constructa, [he] novo cultu e opere a fundamentis erexit atque composuit."

¹⁵⁰ *Romano, Marco, "Materiali di spoglio nel Battistero di San Giovanni in Laterano: un riesame e nuove considerazioni," *Boll d'Arte* 70 1991, 31–70. Brenk, Beat, "Spolien und ihre Wirkung auf die Aesthetik der varietas. Zum Problem alternierender Kapitelltypen," in Poeschke, *Antike Spolien*, 49–80.

¹⁵¹ Claridge, *Rome*, 248.

¹⁵² Bosman, *The power of tradition*, 41ff. for re-use of some of the Old St. Peter's columns in the Renaissance basilica.

¹⁵³ The diagonal grooves in the shafts were surely caused by somebody chasing in cladding for a sloping roof to a house in the centuries when the ground level was much higher—and do not represent any mediaeval attempt to pull down the monoliths.

¹⁵⁴ Christian Hülsen, *Le Chiese di Roma nel Medio Evo* (1927) is on the web at <http://penelope.uchicago.edu/>

¹⁵⁵ Esch, Arnold, "L'uso dell'antico nell'ideologia papale, imperiale e comunale," *Roma antica nel Medioevo. Mito, rappresentazione. sopravvivenze nella Respublica Christiana dei secoli IX–XIII*, (Milan 2001), 3–25.

Bernard of Clairvaux is said to have reminded his pupil, Pope Eugenius III that while the keys came from Peter, the Purple came from the Caesars.¹⁵⁶ As the longest-surviving continuous temporal (let alone spiritual)¹⁵⁷ institution in the West, with more stability at some periods than most secular rulers could generally match, it would be surprising if traditional forms did not bulk large in Papal iconography.¹⁵⁸ Marble and especially porphyry (with its imperial and sacerdotal overtones)¹⁵⁹ were consequently employed in quantities rarely matched elsewhere, at least in part because the imperial city left behind such stocks of them.¹⁶⁰ That the material was especially prized is seen from its reuse as supports for basins and other objects in other stones.¹⁶¹ Again, porphyry and other red-veined marbles were effortlessly associated with relics, reliquaries and the blood of martyrs¹⁶²—hence, perhaps, the rosso antico in the apse of S. Prassede.¹⁶³ Filoramo calls this process the “clericalisation of purple”¹⁶⁴ but it might have been regnal as

¹⁵⁶ Beckwith, John, *Early medieval art*, (London 1964), 85.

¹⁵⁷ Reinaud, *Géographie d'Aboulféda*, I, 280.

¹⁵⁸ E.g. the iconography of the “Concordia Apostolorum,” where the two Apostles are shown joined in harmony by Concordia—a motif directly borrowed from Imperial iconography: Huskinson, J.K., *Concordia Apostolorum. Christian propaganda at Rome in the fourth and fifth centuries. A study of Early Christian iconography and iconology*, (Oxford 1982), 108ff. & figs. 34 & 35.

¹⁵⁹ Déer, Josef, *The Dynastic porphyry tombs of the Norman period in Sicily*, (Cambridge MA 1959), 136ff. LP II.15–17 for Leo III’s two triclinia; Longo, Oddono, ed., *La porpora: realtà e immaginario di un colore simbolico*, (Venice 1998), passim. Gramaccini, Norberto, & Raff, Thomas, “Iconologia delle materie,” in Castelnovo, Enrico, & Sergi, Giuseppe, eds., *Arte e Storia III* (Milan 2004), 406–14.

¹⁶⁰ Blaauw, Sible de, “Papst und Purpur. Porphyry in frühen Kirchengestaltungen in Rom,” *Tesserae. Festschrift für Josef Engemann* (Jahrbuch für Antike und Christentum, Erg.-Bd. 18), (Münster 1991), 36–50.

¹⁶¹ Ambrogi, Annarena, *Labri di età romana in marmi bianchi e colorati*, (Rome 2005), S2–2, S10, S12–3, S109.

¹⁶² Cox Miller, Patricia, “‘The little blue flower is red’: relics and the poetizing of the body,” *Journal of Early Christian Studies* 8:2, 213–236. see 232, on Eulalia, citing Prudentius: “the flow of her ‘red blood’ (purpura sanguinis) will reappear in the purpureas violas sanguinesoque crocos—the purple violets and blood-colored crocuses offered at the basilica containing her relics—as well as on the basilica’s mosaic floor, decorated with multicolored marble “so that you imagine rose-colored meadows, reddening with many kinds of flowers.”

¹⁶³ *Malgouyres & Blanc-Riehl, *Porphyre*, cat. 28 for the Columns of Peter & Paul, Louvre, which “auraient été offertes par le pape Etienne II à l’empereur Pépin le Bref pour sa seconde onction en 754.”

¹⁶⁴ Filoramo, Giovanni, “Variazioni simboliche sul tema della porpora nel cristianesimo antico,” in Longo, Oddono, ed., *La porpora: realtà e immaginario di un colore simbolico*, (Venice 1998), 227–42; see 227.

well.¹⁶⁵ Equally, we should expect the Papacy to know the propaganda potential of the building-history of the physical Church, with the reprise of Early Christian models an assurance of the continuity of the papacy. But papal refurbishment and new building were sporadic rather than continuous, and perforce used earlier materials, because there is no evidence (either documentary or from the buildings) that quarries around Rome remained open. As Wickham remarks, there was some good building in Rome and elsewhere (churches at Brescia, Pavia, Spoleto and Cividale) but little of it, with some continuity of patronage, and some skilled artisans.¹⁶⁶

The main building material in large parts of the Italian peninsula was always brick, and continued to be brick, even in Rome.¹⁶⁷ Augustus' example had obviously been in vain, if we are to judge from the Largo Argentina, no less. This sits on top of an antique complex but, as the name of S. Nicola de'Calcario surely suggests, a lime-making industry as well—and here it was brick that was short and marble that was used as a fill-in.¹⁶⁸ Andrews offers the basis of a useful methodology for building on top of antique walls, and for using Roman remains, which he considers general for all the Middle Ages up to eleventh century, and exclusively so for tiles after the fourth century.¹⁶⁹ This can be seen in the nearby Crypta Balbi Museum, which offers a rare slice of Rome from Antiquity through the Middle Ages,¹⁷⁰ and a publication which offers an overview of architecture and decoration in mediaeval Rome.¹⁷¹ In France, where the main building material was also brick,

¹⁶⁵ Ambrogio, *Labri di età romana*, L11 for the vessel now inside S. Zeno Verona, and once outside in the piazza, adjacent the monastery; the church was built in 9thC by Pipino King of Italy and Son of Charlemagne, and selected by Otto I and successors as a residence. Did they bring the vessel there? S2 in Magdeburg was probably brought by Otto I, and used as a baptismal font.

¹⁶⁶ Wickham, Chris, "Early medieval archaeology in Italy: the last twenty years," *Archeologia medievale* XXVI 1999, 7–20; see 11.

¹⁶⁷ *Christie, *From Constantine to Charlemagne*, 121ff.; Bertelli, G., et al., "Strutture murarie degli edifici religiosi di Roma dal VI al IX secolo," *Rivista dell'Istituto Nazionale d'Archeologia e Storia dell'Arte*, XXIII–XXIV, 1976–7, 95–172.

¹⁶⁸ Avagnina, M.E., et al., "Strutture murarie degli edifici religiosi di Roma nel XII secoli," *Rivista dell'Istituto Nazionale d'Archeologia e Storia dell'Arte*, XXIII–XXIV, 1976–7, 173–255; see 162.

¹⁶⁹ Andrews, D., "La murata medievale: descrizione, analisi e storia economica," in Noy, G., ed., *Castrum 2: Structures de l'habitat et occupation du sol dans les pays méditerranéens*, (Rome 1988), 309–17; see 313.

¹⁷⁰ <http://www.archeorm.arti.beniculturali.it/sar2000/crypta/crypta.asp>.

¹⁷¹ *Arena, Maria Stella, et al., eds., *Roma dal antichità al medioevo: archeologia e storia nel*

Glaber's "white mantle of churches," whether or not whitewash, stone or marble, would indeed have been startling in the midst of such an urban landscape.

The Theodosian edict of 435 should have resulted in some safeguarding of the building stock, since it banned paganism and encouraged the transformation of temples into churches, which Vaes has surveyed.¹⁷² Pensabene notes that this is not in fact the case, and goes on to enlarge on the spoliating consequences. A shortage of good "old" Corinthian capitals led to the use of Ionic capitals (the original SM Maggiore, and S. Stefano Rotondo), and to newly-made composite capitals in fourth- and early fifth-century churches such as S. Vitale, S. Clemente & S. Sisto Vecchio. Make-up quantities of newly-cut capitals were placed out of the limelight in the big basilicas such as S. Lorenzo fuori le Mura,¹⁷³ where attention could be directed to spectacular sarcophagi, or to the higher-quality marbles as one approached the shrine.¹⁷⁴

Already Pope Silvester, in the fourth century, had adorned the apse of S. Lorenzo with porphyry (LP I. 181)—presumably columns, rather than sheets of porphyry, all surviving examples of which are of restricted dimensions. Over four centuries later, Leo III, builder of the sumptuous Lateran triclinium (LP II.3–4, which survived until destroyed under Clement XII), and another at S. Peter's,¹⁷⁵ did much the same to the

Museo Nazionale Romano Crypta Balbi, (Milan 2001); the 15 *saggi* preceding the catalogue are up-to-date, well-referenced and well-illustrated.

¹⁷² Vaes, Jan, "Nova construere sed amplius vetusta servare": la réutilisation chrétienne d'édifices antiques (en Italie)," *Actes du XI^e congrès international d'archéologie Chrétienne*, (Rome & Citta del Vaticano 1989), I, 299–321: useful diagrams 308ff. of various kinds of transformations; and 315ff. for diagrams of typologies of reuse; Ward-Perkins, Bryan, *From Classical Antiquity to the Middle Ages. Urban Public Building in Northern and Central Italy AD 300–850*, (Oxford 1984), passim. Caillet, Jean-Pierre, "La transformation en église d'édifices publics et de temples à la fin de l'antiquité," in Lepelley, Claude, ed., *La fin de la cité antique et le début de la cité médiévale: de la fin du III^e siècle à l'avènement de Charlemagne*, (Bari 1996), 191–211; see 202: reuse happens in times of recession.

¹⁷³ Pensabene, P., "Reimpiego dei marmi antichi nelle chiese altomedievali a Roma," in Borghini, G., ed., *Marmi antichi*, (Rome 1989), 54–64; see 57–8; Voss, I., "Studien zu den ionischen Kapitellen von S. Lorenzo fuori le Mura," *Römisches Jahrbuch der Bibliotheca Hertziana* 26, 1990, 41–86 for details of various kinds of adjustments.

¹⁷⁴ *Rilavorazione*, cat. 46: early 4th-century sarcophagus, recut mid-13thC.

¹⁷⁵ LP II.3–4: "et in circuitu lamminis marmoreis ornavit, atque marmoribus in exemplis stravit et diversis columnis tam porfreticis quamque albis et sculptis cum basibus et liliis simul postibus decoravit. Et camera cum absida de musibo seu alias II absidas diversas storias pingens super marmorum constructione pariter in circuitu decoravit;" II.8 at S. Peter's: as well as adding gypsum windows and "alias fenestras de vitro diversis coloribus," "mire pulchritudinis decorato et absida de musibo ornata, alias et absidas duas dextra levaque super marmores picture splendentes. Et in pavi-

presbyterium of S. Paolo fuori le Mura (LP II. 10) in this, a forest-of-columns church to rival S. Peter's. From the fragmentary evidence, his predecessor Hadrian was perhaps the greatest builder of them all, with perhaps Honorius (625–38) and Gregory II (715–31) as runners-up. For splendour the refurbishings at S. Lorenzo al Verano by Pelagius II and then later by Honorius III stand out. Here the presbytery was enriched with columns of marble, and of porphyry for the ciborium, and with elaborately decorated second- and third-century entablatures. In their tombs, some still surviving in the Vatican grottoes, the Popes show that secular as well as heavenly politics guided their actions.¹⁷⁶ Several Popes (the first being Innocent II, in S. Giovanni in Laterano, in 1143) were inhumed in porphyry,¹⁷⁷ and it is plausible that the popularity of that material with the Norman rulers of Sicily is a case of direct imitation.¹⁷⁸

Perhaps because of the quantities which fed S. Peter's, the architects even of important building projects found it difficult to find matching materials, hence the development of new and less coherent architectural practices.¹⁷⁹ Wilson-Jones instances¹⁸⁰ a pairing in S. Costanza of composite capitals, radically different in size, the one Augustan, the fellow a century later—and on shafts varying in height and girth. On disparity-of-materials grounds alone, then, it is tempting to entertain Stanley's redating of this monument from c.350 to the early 5thC, especially if an explanation is found for where the Constantinian sarcophagus was until then, and why the brickwork looks Constantinian. This would put it with SM Maggiore, S. Sabina and the Lateran Baptistry as “a collaborative effort between Pope Innocent I and Emperor Theodosius II.”¹⁸¹ Unfortunately, the matching-materials argument is blurred by the puzzling example of S. Sabina, built later than several of the churches

mento marmoreis exemplis stratum et caeteris amplis aedificiis tam in ascensum scale quamque post ipsum triclinium compte fecit.”

¹⁷⁶ Walter, C., “Papal political imagery in the mediaeval Lateran Palace,” *Cahiers Archéologiques* XX 1970, 155–76.

¹⁷⁷ De Bouard, A., “Gli antichi marmi di Roma nel medio evo,” *Archivio della Reale Società Romana di Storia Patria* XXXIV 1911, 239–45; see 243 for Charles of Anjou's 1276 efforts to buy the porphyry vessel containing the body of Innocent IV.

¹⁷⁸ Déer, *The dynastic porphyry tombs*, passim.

¹⁷⁹ Hansen, *Eloquence of appropriation*, 41ff., 185ff.

¹⁸⁰ Wilson Jones, Mark, *Principles of Roman architecture*, (New Haven CT 2000), 145 & fig. 7.21.

¹⁸¹ Stanley, David J., “Santa Costanza: history, archaeology, function, patronage and dating,” *Arte medievale* III 2004/1, 119–40; see 139.

already instanced; for here only one of the matching suite of twenty-four columns has a join. But then, if the splendid suite of cannellated columns in S. Pietro in Vincoli really do date from the first church endowed by Sixtus III (432–40), perhaps shafts were not as scarce as one might suppose. Occasionally, shortages were apparently filled by imports of new material. Thus four Byzantine basket capitals (first half of 6thC), given to SS. Cosmas & Damian,¹⁸² were perhaps a gift of Pope John II (533–535), whose monogram they bear.¹⁸³ One problem is that we can never be sure of the original decorative appearance of the great basilicas, which got elaborate makeovers, such as Paschal's work at SM Maggiore.¹⁸⁴ Large structures were of course constantly in need of repair and embellishment (see the LP), and we should perhaps view the Middle Ages as refurbishing and rebuilding in spurts between long decades of lethargy, and recycling marble as much as possible either from the monument being upgraded, or by looting still-available ancient monuments.¹⁸⁵ We should remember that the Romans themselves, like the Pharaohs and Ptolemies, recycled work: for at least 120 extant representations of Caligula, Nero and Domitian were re-cut.¹⁸⁶

If “beauty is the splendour of truth,”¹⁸⁷ then the beauty is often borrowed by the Constantinian takeover of ancient (often marbled) constructions for worship. The Christians, many of them of course Romans, took over very similar attitudes, helped by chapter and verse in the Bible, which is full of marble.¹⁸⁸ In any case, sometimes marble-

¹⁸² Durand, Jannic, et al., eds., *Byzance. L'art byzantin dans les collections publiques françaises*, (Paris 1992), cat. 8 (entry by J.-P. Sordini), now Lyon, Trésor de la cathédrale.

¹⁸³ He also donated lavish Constantinopolitan capitals for the baldacchino of the earlier S. Clemente: cf. Brandenburg, Hugo, *Ancient churches of Rome: from the fourth to the seventh century*, (Turnhout 2005), 145.

¹⁸⁴ LP II.60: “pulcherrimis marmoribus decoratam condidit...pavimentum altaris erigens pretiosissimis marmoribus stravit,” and erected “sex inibi ante confessionem sacri altaris purpureo colore columnas, quas super et candidi marmoris trabem posuit, purpureis dextra levaeque marmoribus nectens novis illas scilicet celaturis exornans satis commode decoravit. Presbiterium quoque ipsius ecclesiae diversis marmoribus quam pridem fuerat in melius reparavit.”

¹⁸⁵ Cf. dvd_marble_and_inscriptions.doc.

¹⁸⁶ Varner, Eric R., *Mutilation and transformation. Damnatio memoriae and Roman imperial sculpture*, (Leiden 2004): 13–16 for recutting in Pharaonic and Ptolomaic Egypt; 16–20 for the Roman Republic.

¹⁸⁷ Mies van der Rohe's oft-cited assertion, supposedly from Augustine—although I have been unable to find its source.

¹⁸⁸ Pracchi, Atilio, “In plano depingere: Adam Scotus e il disegno di architettura nel XII secolo,” *Il Disegno di Architettura* 25–6 Oct. 2002, 3–10; 5 for Richard of S. Victor's depiction of the Temple of Ezechiel (Bodley 494) with marble columns and

rich buildings were required because the saints themselves demanded them: some reputedly chose fine buildings as their shrines; and Roman squared blocks and vaults were viewed as suitably honourable, because ancient materials also brought prestige, even a sort of aura.¹⁸⁹ Piety could also be convenient. Ravennius' Life of S. Hilarius of Arles (d.449) states that he had the theatre—which was rich, according to Heijmans' reconstruction¹⁹⁰—stripped through piety: "Cirillus Levita Basilicis construendis praepositus, dum marmorum crustas, et Theatri proscenia celsa deponeret, fidei opere, nudans loca luxuriae, quod sacrum parabat ornatis."¹⁹¹ We can gauge what the floors of temples could look like by examining the Pantheon, with its floor of red porphyry and yellow Numidian disks with borders of Phrygian purple and white.¹⁹² Equally, the marbled house of a noble or emperor translated into the House of God, and was suitably adorned with marble (floors of mosaic or opus sectile, suites of columns, mosaic veneer dadoes, fresco and/or stucco and/or mosaic above), for which every kind of symbolic explanation was found. There were few paeans to the virtues of simplicity and non-ornament for religious buildings. Augustine, for example, seems resigned to luxuria in churches.¹⁹³ Marble continued to be seen by some as unnecessary. Saint Pacian writes (c.390) of "certain men and women of richer state...dwelling in marble, weighed down with gold, sweeping along in silk, glowing with scarlet."¹⁹⁴ There were

capitals. Adam Scotus, *De tripartito tabernaculo*, written c.1179/80 (PL 198), is inspired by Bede's *De Tabernaculo*; and the idea of reconstructing biblical buildings graphically goes back at least to 6thC: 8thC plan of the Temple, based on a 6thC, in Bibl Laur. Ms Amiatinus I ff.2v–3r.

¹⁸⁹ Hahn, Cynthia, "Seeing and believing: the construction of sanctity in early-medieval saints' shrines," *Speculum* 72.4 Oct. 1997, 1079–1106; see 1082. Pilgrims probably kept their eyes peeled for such building materials: cf. Theodoric's description of Judaea, "...in aliis vero lapidibus quadraturae aptissimis decorantur, in plerisque marmore pario rubio et vario adornantur." Theodoricus, *De locis sanctis* of 1175, chap 2, in de Sandoli, S., *Itinera Hierosolymitana Crucesignatorum (saec. XII–XIII)*, II, Jerusalem 1980.

¹⁹⁰ Heijmans, Marc, et al., *Arles antique*, (Paris 2006), 70–9, for the columns and backing veneers of the scenae frons.

¹⁹¹ Séguin, I., *Les Antiquitez d'Arles, traitées en manière d'entretien, et d'itinéraire, ou sont décrites plusieurs nouvelles découvertes qui n'ont pas encore vu le jour*, (Arles 1687), 35.

¹⁹² Claridge, *Rome*, 206.

¹⁹³ Janes, *God and gold in late antiquity*, 155; Jerome *Ep.* 130, 14: "others may build churches, dress the walls with marbles, procure massive columns, deck the unconscious columns with gold and precious ornaments, cover church doors with gold and precious ornaments and adorn the altars with gold and gems. I do not blame those who do these things and I do not repudiate them." See also *Ep.* 52, 2.

¹⁹⁴ *The Extant Works of S. Pacian, Library of Fathers of the Holy Catholic Church* 17 (1842), 364–377: *Paraenesis*, or, *Treatise of exhortation to penance*, para 18. Further explicated

fewer problems with religious architecture, because the symbolism that could be assigned to the various marble members helped to convert the wavering to luxury in God's House. Rabanus Maurus explains that the saints are the columns of the church, the capitals their heads, the bases their feet¹⁹⁵—an anthropomorphism with a very long life. Lavish churches and shrines were the result,¹⁹⁶ such as the fittings (including opus sectile wall veneer and gold mosaics) in Paulinus' basilica at Nola, near Naples.¹⁹⁷ This updated the shrine for S. Felix (d ca.255) by marbling it: "Three workmen have elaborated it, with...marble...and whereas the roof at first stood on pillars, now that it rests on columns, come to despise the cheap stucco, which it has exchanged for marble."¹⁹⁸ At Parenzo, the Basilica Eufasianiana (mid-6thC) has opus sectile walls to the apse, from 31 types of marble, some being in re-use, perhaps from a local temple.¹⁹⁹

For Christians, then, marble was ambivalent, viewed certainly as a symbol of luxury but also of light. This bad/good dichotomy is complicated by the view of Cyprian who sees its use as a symbol of prosperity, alas declining in his time: "the world is now reaching its old age...Mountains disemboweled and ransacked yield a shortened store of marble layers; the exhausted mines send up but a scanty wealth of silver and gold...it is God's law, that as things rose so they should fall."²⁰⁰ But, as is often noted in admonitory literature from the Greeks onwards, luxury/marble could entail a softening of the sinews of rule, as Michael Psellus remarks petulantly of the Byzantine emperors' taste (before Isaac) for "magnificent shows, ignoring the army and emptying the treasury, indulging themselves with monuments of Phrygian or

in Hrabanus Maurus, *De rerum naturis*, 14.23, *De parietibus aedificiorum*, online at <http://www.mun.ca/rabanus/>.

¹⁹⁵ Quintavalle, Arturo Carlo, "Quei campi dei miracoli," *Rilavorazione*, 15–28: 16 for Rabanus Maurus, *Allegorie in Universam Sacram Scripturam* PL CXII col 899.

¹⁹⁶ Crook, *Cult of saints*, 242ff. for their development.

¹⁹⁷ Lehmann, Tomas, *Paulinus Nolanus und die Basilica Nova in Cimitile/Nola: Studien zu einem zentralen Denkmal der spätantik-frühchristlichen Architektur*, (Wiesbaden 2004); plates 65 & 66 for the opus sectile floor in the apse; plates 159–63 for the mosaic edicule and the marble tombs of Paulinus Iunior d.442 and Felix d.484.

¹⁹⁸ Cited in *Christie, *From Constantine to Charlemagne*, 129. Cf. Hansen, *Eloquence of appropriation*, 251–60.

¹⁹⁹ Terry, Ann, "The 'opus sectile' in the Eufrasius Cathedral at Porec," *DOP* 40 1986, 147–64.

²⁰⁰ Stevenson, J., ed., *A new Eusebius*, 238: Cyprian to Demetrian.

Italian marble, or of Proconnesian slab...to glorify their new-fangled buildings.”²⁰¹

The takeover of marble ideals moderated by a Plinian distaste for luxury should not surprise us. Churches became the focus for marble enrichment, but pagan villas lived on, so to speak, in official residences that might be those of governors or bishops.²⁰² No Early Christian religious ensembles have survived with all their decoration intact, some of them being dismantled in post-mediaeval times,²⁰³ but we know of their materials through descriptions (especially those of the *Liber Pontificalis*). Thus the SM Mater Domini chapel at Vicenza (SS. Felice e Fortunato), of the mid 6thC, had proconnesian marble veneer on the walls and mosaics above. The S. Prosdocimo Chapel at Padua (in S. Giustina; much rebuilt) had walls encrusted in beautiful marbles, again with mosaics above,²⁰⁴ while S. Sophia has (apparently) 6thC shafts and capitals. In Milan, S. Gregorio was demolished in 1576 but described beforehand by Bonaventura Castiglioni.²⁰⁵ Further afield, proconnesian marble was imported in enormous quantities for the late 5th-century Campanopetra complex at Salamis-Constantia (Cyprus).²⁰⁶ This, the largest church on the island (58m by 42m) nevertheless had stone columns, the drums of which might have been old. Elsewhere, local stone was often used for churches, and hence left alone rather than removed—even at Cherchel, which retains a useable Roman jetty.²⁰⁷

²⁰¹ Sewter, E.R.A., trans, *Chronographia*, (New Haven 1953), section 59.

²⁰² Lavan, Luke, “The residences of late antique governors: a gazetteer,” *Antiquité Tardive*, 7 1999 (the volume is themed on *Figures du pouvoir: gouverneurs et évêques*), 135–64; see 149–50 for Aphrodisias (palace with triconch), and 161–4 for an appendix demonstrating problems of identification and hence purpose.

²⁰³ Mackie, Gillian Vallance, *Early Christian chapels in the west: decoration, function*, (Toronto 2003), 47: the basilica at Pula lost its nave columns to Venice in 1547 and the alabaster columns of the ciborium in 1605, the latter now being in the Chapel of the Holy Sacrament in S. Marco.

²⁰⁴ Picard, Jean-Charles, *Le souvenir des évêques: sépultures, listes épiscopales et culte des évêques en Italie du Nord des origines au X^e siècle*, (Rome 1988), 641f. This survived, much reworked.

²⁰⁵ Mackie, *Early Christian chapels*, 38, 42–3; see 157: “in cotesto tempio vi erano anche alcune lavori di marmi finissimi di diversi colori tassillati, ossia alla mosaica, tavole di pietra segate con frisi varii componuti di vasi di fiori e di animali, or venuti al meno, e davoti il bianco levate l’opere magnifiche.”

²⁰⁶ Megaw, A.H.S., “Byzantine architecture and decoration in Cyprus: Metropolitan or Provincial?” in *DOP* 28 1974, 57–88; see 68.

²⁰⁷ Pensabene, Patrizio, “Les chapiteaux de Cherchel. Etude de la décoration architectonique,” 3 Supplement to *Bulletin d’Archéologie Algérienne*, (Algiers 1982), 70 marble capitals are catalogued, then 74 in local stone. Were the surviving marble capitals (e.g. cats 19–25) too large at 70cm (and more) to be of any use?

Frequently, paleochristian churches were built in or on antique constructions, from basilicas and baths to cisterns and theatres, military constructions and propylaea, shops and tombs. Vaes has catalogued 600 Italian and 800 other temple conversions²⁰⁸—although many temples no doubt simply disappeared into newer buildings.²⁰⁹ For churches built on antique constructions he counts 75 cases in Latium, and 53 in Rome intra muros. The takeover was not just of ideas and symbols but of buildings, sometimes with trepidation and exorcism where temples were concerned.²¹⁰ None of this is surprising, and his longer compilation would repay detailed study to ascertain dating, motive(s) and longevity of the replacement structures.²¹¹ Bayliss has surveyed Cilicia, and provides graphs from his database showing a peak of destruction in 4th–early 5thC, and peaks of conversion in the 6th–early 7thC²¹²—a two-hundred-year gap which may also be typical elsewhere. Unfortunately, however, the takeover was apparently not universal, and should certainly have happened in Rome if anywhere. But Pensabene, noting that the effects of the Theodosian edict of 435 banning paganism and encouraging the transformation of temples into churches should be discernible in the contemporary churches of Rome, demonstrates that this is not in fact the case.²¹³ This might have been because there were simply too many pagan buildings and too few people.

In these early centuries, how to deal with pagan remains that were needed for incorporation into a Christian setting? Scholars tend to see such pieces either as converted by their very insertion (and hence deprived of their once-noxious power),²¹⁴ or deliberately introduced so

²⁰⁸ Vaes, J., “Nova construere sed amplius vetusta servare.” “La réutilisation chrétienne d’édifices antiques en Italie,” *Actes du XI^e Congrès internationale d’archéologie chrétienne*, (Rome 1989), I, 299–319: see 299, 306.

²⁰⁹ Sotinel, Claire, “La disparition des lieux de culte païens en Occident. Enjeux et méthode,” in Narcy, Michel, & Rebillard, Éric, eds., *Hellénisme et christianisme*, (Villeneuve-d’Ascq 2004), 35–60, for the context.

²¹⁰ Gandolfo, F., “Luoghi dei santi e luoghi dei demoni. Il riuso dei templi nel medioevo,” *Santi e demoni nell’alto medioevo occidentale, secoli V–XI*, (Spoleto 1989), 2, 883–916.

²¹¹ *Vaes, J., “Christliche Verwendung antiker Bauten,” *Ancient Society* 15–17, 1984–6, 305–67; reuse of mausolea & heroa, 338ff.; of temples 326ff.; of church built into walls, 324–5; of bath complexes, 317ff.; for churches built on/in temples in Italy, 331ff.; for temples to churches in N. Africa, 348f.

²¹² Bayliss, Richard, *Provincial Cilicia and the archaeology of temple conversion*, (Oxford 2004), 124–9, 143ff.

²¹³ Pensabene, P., “Reimpiego dei marmi antichi nelle chiese altomedievali a Roma,” in G. Borghini, ed., *Marmi antichi*, (Rome 1989), 54–64; see 57.

²¹⁴ Often by the incising of a cross—a very common occurrence, also used on Islamic buildings in Andalucia: Cressier, Patrice, “Graffiti cristianos sobre monumentos

as to be degraded. Zanker discusses a magnificent frieze with the thunderbolt emblems of Jupiter (end 2nd early 3rd AD; now much worn) re-used as a threshold in Old S. Peter's, which he suggests was deliberately placed so as to be symbolically soiled by Christians.²¹⁵ Given the dating, we can be confident that the builders did indeed know what the frieze depicted. And references survive indicating that such a destination for clearly pagan pieces was not rare. Thus Porfirius re-used the marble revêtements of the Temple of Zeus Mana at Gaza specifically on the pavement of his cathedral so that they might be trodden underfoot.²¹⁶ Pagan inscriptions were frequently re-used in churches, prominently displayed,²¹⁷ but here the intention is less clear, although it has been argued that ancient inscriptions were strategically placed "as meaningful traces of a defeated past," so that a "historically-based rupture with the pagan past" was created.²¹⁸ But there are plentiful examples of them being re-used as building and flooring materials, surely because the slabs were flat and smooth.²¹⁹ The best-known example is the strigillate sarcophagus front in the atrium of S. Sabina, Rome, the verso of which was smoothed for a 1594 tombstone. Certainly some were trodden underfoot, but so also were Christian grave-slabs, to be trodden as an expression of piety. And if pagan materials appeared tainted to some, they were sanctified by being incorporated early into churches, so that in essence a new type of antiquity—early Christian antiquities—was created.²²⁰ In this, as we have seen, the Constantinian S. Peter's led the

musulmanes de la Andalucía oriental: una form de exorcismo popular," in his *Estudios de arqueología en Almería*, (Maracena 1992), 123–48.

²¹⁵ Zanker, P., "Un inedito fregio con emblema di Giove reimpiegato nel Medioevo in San Pietro," *Palladio* NS III 5 1990, 121–6.

²¹⁶ Paribeni, Andrea, "L'uso e il gusto del marmo in età bizantina attraverso le descrizioni e le rappresentazioni antiche," in Dolci, Enrico, ed., *Il marmo nella civiltà romana*, (Lucca 1990), 163–83; see 164–5. Mango, *Sources and documents*, 30–2 for Mark the Deacon's text.

²¹⁷ Marangoni, *Delle cose gentilesche*, 435ff.

²¹⁸ Moralee, Jason, "The stones of St. Theodore: disfiguring the pagan past in Christian Gerasa," *Journal of Early Christian Studies* 14:2 2006, 183–215; see 183, and 203ff., "Contextualizing epigraphic spolia as a disfigured past."

²¹⁹ For example Nuzzo, Donatella, "Impiego e reimpiego di materiale epigrafico nella basilica cristiana di Pianabella (Ostia)," *Vetere Christianorum* 33 1996, 85–114: slabs from the nearby necropolis were reused in the structure of the basilica when first built, and in subsequent rebuilds, and no slab is later than the 5thC; it collapsed in the 10th–11thC when it was in its turn spoliated.

²²⁰ Moore, Derek A.R., "Spolia in Roman architecture," in Striker, Cecil L., & Ackerman, James Stokes, eds., *Architectural studies in memory of Richard Krautheimer*, (Mainz 1996), 119–22; see 122.

way, incorporating and displaying large quantities of evidently pagan materials because they were beautiful.²²¹

Evidently, earlier remains were sometimes introduced into Early Christian settings to project a specific message. At Gaza, Porfirius was probably doing more than adding anti-pagan rhetoric to legitimize marble he would have re-used anyway, since at Jerash (Gerasa) we find an inscription explaining the rationale (a technique that might have been common in the West as well).²²² The Artemision at Jerash was left to decay while several churches were built nearby, and S. Theodore was given an inscription explaining why: "Beforehand, animals tormented by their sufferings/were thrown here and there, and spread a terrible smell.../Today, those who pass this scented place...make the sign of the cross." One scholar believes the new architectural conformation "stood for changing community beliefs and expectations, not relentless urban decline."²²³ Another explains leaving temples to decay at Jerash as "a dramatic juxtaposition between a Christian shrine and the spectacularized ruination of a cult that it has superceded and suppressed. The public display of destruction as a proof of victory might be named the space of spolia."²²⁴ Unfortunately she disregards the dismantling of the Temple of Zeus, in "an operation of well thought out and organised dismantling. In effect, ensembles of blocks appear to have been constituted at the site of origin and assigned for the construction of each of the Byzantine buildings under study."²²⁵ Could the reason for such differential treatment be simply that the Zeus blocks could be used, but that the Artemision blocks could not? Arguing from absence of action is tricky. For Jerusalem, for example, Wharton asserts that "the Christians of Jerash and Jerusalem perpetuated their defeat of traditional cults by

²²¹ Kinney, "Spolia," passim.

²²² A common technique in the West as well, as at Sora, where the inscription on the main door (1100) refers to (L)IMINIBUS SACRIS...(E)X IDOLIS FALSIS: cf. <http://www.cattedralesora.it/index.htm>.

²²³ Walmsley, Alan, "The Islamic city: the archaeological experience in Jordan," *Mediterranean Archaeology* 13 2000, 1–9: see 8–9; he believes the temples were not dismantled "due to their massive size."

²²⁴ Wharton, Annabel J., *Refiguring the postclassical city: Dura Europos, Jerash, Jerusalem and Ravenna*, (Cambridge 1995) 99.

²²⁵ March, Chrystelle, "La réutilisation des éléments d'architecture du temple de Zeus à Gerasa à la période Byzantine," *Syria* 81 2004, 147–75. Not all is golden, however, because 172–3 she notes that in some places facing blocks were available but were not reused. So what price aesthetics? She suggests the reason was a change of building plan.

framing their empty shrines”—although there was at least one chapel on the Haram before the Dome of the Rock was built.

Indeed, the Middle Ages present us with so many types of re-use that almost anything can be argued from them with conviction, ranging from triumphalism and religious appropriation to aesthetic conservatism.²²⁶ For example, at Harran (S. Turkey, near Raqqa), Nur Al-Din's mosque completed in 1174 incorporated 6thC BC figured Babylonian stelae in each of the three entrances, as well as marble columns supporting the courtyard domes, and stonework in the classical tradition.²²⁷ Is this convenience, or some kind of triumphalism over the past? The “East Cathedral” at Apamea has its small marble paving stones laid directly on top of the beautiful mosaics of what is believed to be the famous school of philosophy in which it is built. Was this done in order to erase its very memory? The five-aisle church in the courtyard of Basilica III (“of Servus”) at Sbeitla (Tunisia, with many surviving monuments) takes over part of the colonnade, with the cella of the temple becoming the baptistery; the same thing happens at Thuburbo Maius, where the church uses the south colonnade of the temple courtyard for its own. Even the placing of a large church opposite temples and capitol, as at Tipasa, can be interpreted as triumphalism.²²⁸

Byzantium

This section examines Byzantium and how it used marble both fresh-cut and re-used for both of which it had from the beginning a decided taste. Constantine's removal to Constantinople did not of course close down Rome, because although he took much marble with him, he left behind Christian monuments that set the typology for centuries.²²⁹ But it was a turning-point in architecture and aesthetics as in much else.²³⁰

²²⁶ Coates-Stephens, Robert (2003) “Attitudes to spolia in some late antique texts,” in Lavan Luke, & Bowden, William, eds., *Theory and practice in late antique archaeology*, (Leiden 2003), 341–358, for a critique.

²²⁷ Allen, Terry, *A classical revival in Islamic architecture*, (Wiesbaden 1986), 42ff., 46. *El Harran*.

²²⁸ Balty, Janine, & Balty, Jean Ch., eds., *Apamée de Syrie. Bilan des recherches archéologiques 1969–71*, (Brussels 1972); 183 & pls LXIII–LXIV for the East Cathedral; 231–3 for Sbeitla and Thuburbo Maius; and 250 for P.-A. Février's estimation of the opposition at Tipasa.

²²⁹ Holloway, Ross, *Constantine and Rome*, (New Haven 2004).

²³⁰ **Costantino il grande*, passim.

Sodini sees the Byzantines as veritable aesthetes of marble, remarking for example on the precision with which the materials are detailed in the listings of imperial sarcophagi.²³¹ Likewise, some descriptions of Haghia Sophia seem to make it even more magnificent than it really was.²³² It is such connoisseurship which spills over into the depiction of marble in manuscripts, and surely in their extravagant display in Venice.²³³ After a brief survey of colonnades—a typological “glue” for the whole Empire, and the source of countless cases of re-use—we turn to Constantinople itself, and then move to Ravenna as a reflection of the monuments Constantinople itself has lost. Some attention is also given to the cities of Ankara, Iznik and Thessaloniki, and Byzantine North Africa. The size and sophistication of the Byzantine Empire (not to mention the power of their bronze and marble statues, columns and marvelous talismans “the like of which are not to be found in the lands of the Muslims”)²³⁴ were two aspects which impressed Islamic builders, and reflections of such luxury and marble use are to be found in their work, as we shall see later. Some cities are conspicuously absent, especially Antioch and Izmir. The former lost much of her magnificence thanks to earthquakes, and some to mediaeval looting, but its marbled fame was wide,²³⁵ and it has never been thoroughly

²³¹ *Sodini J.-P., “Le goût du marbre à Byzance: sa signification pour les Byzantins et les non-Byzantins,” *Études Balkaniques* 1 (1994), 177–201.

²³² Dagron, Gilbert, *Constantinople imaginaire. Etudes sur le recueil des “patria,”* (Paris 1984), 203–4: when the “ravishing and superb” marble revêtement was in place, the joints were gilded, as were the capitals etc, to two-fingers-depth of pure gold; the floor of the nave was decorated with polychrome marbles of great price, and polished; everywhere else got a dallage of white marble made up of *very large and precious white stones*.

²³³ Paribeni, Andrea, “L’uso e il gusto del marmo in età bizantina attraverso le descrizioni e le rappresentazioni antiche,” in Dolci, Enrico, ed., *Il marmo nella civiltà romana*, (Lucca 1990); see 163–83 168–70 for identification of the specific marbles in manuscripts.

²³⁴ El-Cheikh, Nadia Maria, “Byzantium through the Islamic prism from the twelfth to the thirteenth century,” in Laiou, Angeliki E., & Mottahedeh, Roy P., eds., *The Crusades from the perspective of Byzantium and the Muslim world*, (Dumbarton Oaks 2001), 53–69; see 57: quote from Al-Harawi, d.1215.

²³⁵ Guidi, Ignazio, “Una descrizione araba di Antiocha,” *Rendiconti della Reale Accademia dei Lincei, Classe di Scienze morali, storiche e filologiche* series 5, 6, 1897, 137–61. See 130–2: this undated mirabilia-type description writes of a Temple of Mars with 120 matching columns of white marble; for the royal palace there were 300 stone-cutters; and other large numbers for the other workmen; and “Nel porto di Suwaidiyya, di carri, di basti e di barche che trasportavano il marmo e le colonne e le basi eranvi un gran numero,” while King Antiochus (!) built a fortress “sul colle del fiume, e vi porto sopra marmo rosso e bianco e marmi bianchi incrostatati con marmi di altro colore; vi fece idoli e cose meravigliose quali niun re prima di lui avea fatto le somiglianti.”

dug²³⁶ (which hampers study of the Middle Ages in many centres).²³⁷ The latter's position as a sheltered trading seaport also ensured early and easy spoliation.

Marble new and re-used, colonnades and colour

Asia Minor and Greece were rich in working quarries (such as Proconnesus, Phrygia and Thasos)²³⁸ so much of the marble used in early Constantinople (from Constantine to Justinian) was fresh-cut, including the series of immense porphyry blocks for Imperial sarcophagi.²³⁹ Perhaps materials also came from stockpiles in Asia Minor now eternally awaiting export to the erstwhile Imperial city of Rome. But how long quarries remained open is contentious, and might well govern (or help develop) contemporary attitudes to the re-use of antiquities.²⁴⁰

While there were open quarries with marble with the necessary fracture characteristics, monolithic columns—and coloured shafts and veneers²⁴¹—became a signature feature of architecture on Byzantine territory, and of obvious utility in adding eventually to the stock of such reusable columns. In the West, columns were largely restricted to church naves and atria, apart from the colonnade from the river to S. Peter's, and those at S. Lorenzo²⁴² and S. Paolo fuori le Mura, which

²³⁶ Lassus, Jean, in Marec, Erwan, *Monuments chrétiens d'Hippone, ville épiscopale de Saint Augustin*, (Paris 1958), 5: "Il existe deux sortes d'archéologues, ceux qui trouvent ce qu'ils cherchent et ceux qui, cherchant, trouvent ce qu'ils trouvent. La deuxième catégorie est de beaucoup la plus répandue. On veut définir la topographie de la ville d'Antioche et après neuf ans de fouille, on publie un catalogue de mosaïques."

²³⁷ Ward-Perkins, Bryan, "Urban survival and urban transformation in the eastern Mediterranean," in Brogiolo G.P., ed., *Early Medieval Towns in West Mediterranean*, (Mantua 1996), 143–53, passim.

²³⁸ Herrmann, J.J., & Sodini, J.-P., "Exportations de marbre Thasien à l'époque paléochrétienne: le cas des chapiteaux ioniques," *Bull. Corr. Hellénique* 101 1977, 471–511.

²³⁹ *Asutay-Effenberger, Neslihan, & Effenberger, Arne, *Die Porphyrsarkophage der öströmischen Kaiser*, (Wiesbaden 2006).

²⁴⁰ Sodini J.-P., "La sculpture médio-byzantine: le marbre en ersatz et tel qu'en lui-même," in Mango, Cyril, & Dagron, Gilbert, eds., *Constantinople and its Hinterland*, BZ 90 1997, 289–311: he denies Proconnesus was open in the 9th century, hence the emphasis on re-use.

²⁴¹ Fischer, *Marble studies*, in Palestine 31–2: Coloured granite for columns, grey from the Troad and red from Egypt; of revêtement plaques in coloured marble, "the greatest share of such marbles have been attributed to structures of the Byzantine period."

²⁴² With a portico (presumably all old stock) of nearly one kilometre constructed by Hadrian I (772–95) to "Laurentiopolis": cf. Lanciani, *Wanderings*, 303.

continued the ancient Roman love of this building form.²⁴³ Any civic porticoes were short in extent. In the East, however, the colonnaded street, often of great length, was a favourite town-planning device, and even in Bosra, where the columns were not marble, they were taken for re-use.²⁴⁴ Mundell Mango identifies the vogue at Constantinople itself: regulations were issued against obstructing them. She lists from textual evidence porticos built or rebuilt at Antioch (540), Zenobia (550), Jerash (520), Gaza (536), Edessa (496/7), Dara and Scythopolis (507); and she adduces excavated evidence for Aphrodisias, Apamea, Jerusalem and Caesarea.²⁴⁵ At Caesarea, they were still so plentiful that the Crusaders used well over sixty to form a breakwater on this treacherous coast.²⁴⁶ At Apamea, the main street was a colonnade nearly 2km long, some of the shafts of which no doubt went as wall-ties into the fortress of Kalat el-Mudik. The form saw echoes of various kinds in Islamic architecture.²⁴⁷

Colonnades and porticoes used white or near-white marbles, but Byzantium like Rome much appreciated coloured marbles, higher up the chain of luxury, and generally used them for interiors. These were imported newly-quarried and on a large scale into Constantinople and other cities, in order to feed what Sodini terms an extraordinary infatuation for marbles, prized for their colour and veining.²⁴⁸ Paul the Silentiary's description of Haghia Sophia²⁴⁹ names the various marbles, and emphasizes the difficulty of their extraction and transport, so that "the very presence of the columns in the church is treated as proof of the extent of his [Justinian's] domain."²⁵⁰ Marble is everywhere: col-

²⁴³ Favro, *Urban image*, 169–71.

²⁴⁴ Butler, Howard C., *Ancient architecture in Syria, IIB: Northern Syria*, (Leiden 1907), II, 232–3.

²⁴⁵ Mundell Mango, Maria, "The porticoed street at Constantinople," *Byzantine Constantinople*, 29–51; see 43.

²⁴⁶ Holum, Kenneth G., et al., *King Herod's Dream. Caesarea on the sea*, (New York 1988), fig. 174.

²⁴⁷ Rabbat, Nasser, in *EI: rivak*.

²⁴⁸ Sodini, Jean-Pierre, "Le commerce des marbres à l'époque protobyzantine," in Dagron G., ed., *Hommes et richesses dans l'Empire byzantin, I, IV–VII siècle*, (Paris 1989), 163–186: quote from 166; includes inventory and survey, with maps of the spread of different types of capitals.

²⁴⁹ Text in Mango, *Sources and documents*, 80–96; commentary in Friedländer, Paul, *Johannes von Gaza, Paulus Silentiarius und Prokopios von Gaza: Kunstbeschreibungen justinianischer Zeit*, (Hildesheim 1969), 284ff. for marble inside the church.

²⁵⁰ Webb, Ruth, "The aesthetics of sacred space: narrative, metaphor, and motion in Ekphrasis in church buildings," *DOP* 53 1999, 59–74; see 71.

umns and capitals, transennae, wall veneers, and floors, with exquisite and rare stones in the omphalion and the sanctuary, and mirrored panels in the floor by the entrance. For Robert, the marbles described by the Silentiary indicate a tradition of pattern- and colour-matching going back to Augustus,²⁵¹ and which is reflected in later churches in Constantinople.²⁵² Justinian's marbling was lavish and, unless it can be proved to the contrary, all buildings later than his reign (527–65) were built with earlier materials. This contention is supported by the documented cases of buildings dismantled or compulsorily purchased for their materials.²⁵³ It could also be the case that after the 6th century the proconnesian cast upon the waters (as it were) by Anastasius and Justinian in their grand building projects throughout the Empire²⁵⁴ came back to the capital—just as so many of them (especially capitals) are found in re-use from Cairo to Tunisia.

Constantinople

With the transfer of the Empire to Constantinople (the *New Rome* founded in 330), the new-old city is promoted as explicitly and implicitly a new Rome. This is in part supported by the importation of marble from the museum-like Rome itself, and also from Athens and other centres,²⁵⁵ surely as another bolster of legitimate tradition.²⁵⁶ Indeed, the late-antique propensity for collecting and for venerating the past made

²⁵¹ Robert, Louis, "Les kordakia de Nicée, le combustible de Synnada et les poissons-sciés. Sur des lettres d'un Métropolitain de Phrygie au X^e siècle. Philologie et réalités," in his *Opera Minora Selecta*, VII, (Amsterdam 1990), 71–140 (ex *Journal des Savants* 1962, 5–74), 99ff., "Quand le marbre de Synnada commença son voyage triumpfal."

²⁵² Such as the exonarthex of the Pantokrator (1118–36), paved with large slabs of proconnesian with a border of red marble.

²⁵³ Matschke, Klaus-Peter, "Builders and building in late Byzantine Constantinople," *Byzantine Constantinople*, 315–28; see 327.

²⁵⁴ *Barsanti, C., "L'esportazione di marmi dal Proconneso nelle regioni pontiche durante il IV–VI secolo," *Rivista dell'Istituto Nazionale d'Archeologia* XII 1989, 91–220.

²⁵⁵ Cf. the Pseudo-Codinus, *Origines Costantinopolis*, reprinted in Foss, Clive, *Byzantine and Turkish Sardis*, (Cambridge MA 1976), 107–8 from Preger, Th., ed., *Scriptores originum Constantinopolitanarum*, (Leipzig 1907), 189: "many monuments were brought by Constantine the Great from Athens, Cyzicus, Caesarea, Tralles, Sardis...and all the cities of the east and west."

²⁵⁶ Frantz, Alison, *Late antiquity, AD 267–700: results of excavations conducted by the American School of Classical Studies at Athens*, (Princeton 1988), 74ff. for the removal of artworks to Constantinople.

Constantinople as much of a museum-like city as Rome.²⁵⁷ However, if we believe Paul the Deacon, Constans' loot (in 663) from Rome and Southern Italy never reached the city, but was carried off by the Moslems to Alexandria²⁵⁸ who, according to El Nowairi, sold the figurative sculptures to India.²⁵⁹ We might reasonably expect a tradition of re-use to continue for centuries, until new aesthetics made the practice old-fashioned. This does happen, at the same time as quarries continue to feed materials for immense structures such as Hagia Sophia. Of course the difference with the old Rome is that the city on the Tiber had large stocks of marble, conveniently and often superbly carved, off which Constantine and the Popes (and kings/emperors) could feast for centuries without exhausting the supply entirely. Although the Athenian Greeks (amongst many others) had used older building materials, Constantine is the marker in Roman times because he demonstrates that such re-use can provide a meaning for the present by displaying the glories of earlier centuries—a methodology adopted by successors Christian and Muslim alike. The Arch of Constantine is the earliest complete surviving spoliage monument in Rome, but he and Helena also commissioned monumental buildings in Jerusalem, likewise heavily dependent on earlier structures, and probably for similar reasons.

Constantine's nearly-new city had been endowed by Septimius Severus with a series of monuments, so some of the materials used would be local. There were Roman and Hellenistic monuments and even small cities within reach. As in Italy, people lived cheek-by-jowl with monuments, often expressing admiration for the more spectacular ones.²⁶⁰ Serious spoliation required journeys to more distant parts of Asia Minor—an area which nevertheless vies today with Syria and North

²⁵⁷ Lançon, Bertrand, *Rome in late antiquity*, (Edinburgh 2000), 17ff.: "The urban heritage: the city as a museum," Elsner, Jas, *Imperial Rome and Christian Triumph*, (Oxford 1998), 186ff.

²⁵⁸ Paul the Deacon *Hist. Lang.* V.11–13: upon hearing he had been killed in his bath in Syracus, they "invaded and plundered Sicily, taking a lot of booty "et omne illud quod Constans augustus a Roma abstulerat ornatum in aere et diversis speciebus."

²⁵⁹ De la Primaudaie, Elic, "Les arabes en Sicile et en Italie," in Malte-Brun, *Nouvelles Annales des voyages de la géographie et de l'histoire*, 191 (Paris 1866), 131: "Abdallah envoya au khalife toutes ces précieuses dépouilles, et Moawia, ne pouvant s'en éfaire dans les pays musulmans, où les images sont en grande horreur, les fit vendre dans les Indes."

²⁶⁰ *Saradi-Mendelovici, Helen, "Christian attitudes toward pagan monuments in late antiquity and their legacy in later Byzantine centuries," *DOP* 44 1990 47–61; 58ff. for appreciation of e.g. Pergamon, Athens and Kyzikos; Wickham: *Framing*, 626: in Athens, "the 'Greek agora' was clearly becoming demonumentalized by the fifth century, with shops partitioning the colonnade around it by the sixth."

Africa for the splendour of its remains. In consequence, Constantine and his successors beautified their city by importing marble from all over the Empire—not just statues, but architectural members as well. They thereby created a living marble city to the admiration of mediaeval visitors,²⁶¹ whereas Rome was a heap of ruins whose general desolation was mitigated only by its churches and relics.²⁶² All the great Constantinopolitan monuments (such as the Great Palace, the Hippodrome, the Baths of Zeuxippos) were marble-rich. Even the walls boasted a marble tower (at the juncture between the Sea Walls and the Land Walls) and a marble-rich Golden Gate²⁶³—but then walls were crucial here as in Italy as marks in the “geography of power.”²⁶⁴ Perhaps walls in smaller settlements such as Patara (Lycia), “rubble-faced with carefully arranged marble spoils—architectural fragments, sculpture and inscriptions,”²⁶⁵ carried a similar message. The majority of building in Constantinople was new, of brick and wood (rather than stone) covered with stucco or sometimes marble veneer, and marble seems to have been reserved for prestigious constructions, although excavation is crucial to discover what written sources omit.²⁶⁶ Exactly the same was to occur under the Ottomans: it is the great imperial mosques that use earlier marble, and we know from documents that these stocks were brought from the four corners of the Empire. Some Byzantine emperors had similar tastes in gigantism, such as Constantine IX, who “became consumed by the passion of rivalling all the buildings of the past and even surpassing them by far.”²⁶⁷

²⁶¹ Ciggaar, Krijna Nelly, *Western Travellers to Constantinople: The West and Byzantium, 962–1204: cultural and political relations*, (Leiden 1996).

²⁶² Byzantium had a very large stock, many of which were to reach Europe. Cf. *Cutler, Anthony, “From loot to scholarship: changing modes in the Italian response to Byzantine artifacts, ca.1200–1750,” *DOP* 49 1995, 237–67; see 239–48.

²⁶³ *Asutay-Effenberger, Neslihan, *Die Landmauer von Konstantinopel-Istanbul: historisch-topographisch und baugeschichtliche Untersuchungen*, (Berlin 2007), 182–203 for catalogue of re-use. Vasiliev, Aleksandr A., *Byzance et les Arabes*, (Brussels 1950), 383–4 for Ibn Rusteh (first third 10thC?) on the Gate and its elephants.

²⁶⁴ Marazzi, Federico, “The destinies of the late antique Italies: politico-economic developments of the sixth century,” in Hodges, Richard, & William Bowden, William, eds., *The sixth century: production, distribution, and demand*, (Leiden 1998), 119–59; 142–5 for Procopius, and for the “geography of power.”

²⁶⁵ Foss, Clive, “The Lycian coast in the Byzantine age,” *DOP* 48 1994, 1–52; see 14ff.

²⁶⁶ *Sodini, Jean-Pierre, “La contribution de l’archéologie à la connaissance du monde byzantin,” *DOP* 47 1993, 139–84.

²⁶⁷ Michael Psellus’ account in Mango, *Sources and documents*, 218–20.

Constantinople was built to be a marvel, and visitors duly obliged. Ishaq B. Al-Husain (10thC) writes that it contains talismans “and marvelous monuments of ancient times.” On the Embassy of 917, Al-Baghdadi describes their passage through the “cavalry quarter,” which consisted mostly “of porticoes with columns of marble” (perhaps the Daphne). At a similar date Ibn Rosteh (first third 10thC?) admired the vestibule of the Chalke with its large vestibule paved with green marble—just one part of a large and marble-rich complex,²⁶⁸ which included some earlier pieces, even in Haghia Sophia.²⁶⁹ Bassett would like to see the great variety of marbles displayed in the church as an example of Imperial “reach”²⁷⁰—as potent as the similar purpose suggested for Imperial Rome. This is explicit in Paul the Silentiary,²⁷¹ who does not mention that marbles in Haghia Sophia (including the eight great porphyry columns) were in re-use. Perhaps he took it for granted, since the eight differ so visibly in height and girth. In Byzantium as in the Western Middle Ages, distinguishing between truth and convention can sometimes be difficult.²⁷² Hence a fantastic account (8th–10th century?) of the great church’s building surely reads contemporary concern for appropriate re-use into the structure, irrespective of just how much was actually used therein (not much that was visible, apart from the porphyry columns). It tells how Justinian sent strateges, satraps, judges and preceptors to search for columns and pillars, slabs and veneers, chancel screens, etc; so they sent material taken from pagan temples, ancient houses and baths, conveyed on rafts. The widow Marcia wrote that she was sending him from Rome “columns of the same height, dimension and weight, for the salvation of my soul”—make-believe, since we have seen that the eight porphyry columns were not identical. The rest of

²⁶⁸ Vasilev, *Byzance et les Arabes*, 426, 76, 384–7.

²⁶⁹ Guiglia Guidobaldi, Alessandra, & Barsanti, Claudia, *Santa Sofia di Costantinopoli. L'arredo marmoreo della grande chiesa giustiniana*, (Vatican City 2004), 535–648 for catalogue and overview of the re-used elements, which are unimportant (except of course for the big columns).

²⁷⁰ Bassett, Sarah, *The urban image of late antique Constantinople*, (Cambridge 2004), 125—but this strains the evidence.

²⁷¹ Freely, John, & Çakmak, Ahmet S., *Byzantine monuments of Istanbul*, (New York 2004), 100: “green porphyry, Karystos, Phrygian from Synnada, variegated from Hierapolis in Caria,” and “Iasian, with slanting veins of blood red,” plus Simittis, plus Pyrenees, namely “the product of the Celtic crags, like milk poured on a flesh of glittering black,” and finally onyx.

²⁷² Maguire, Henry, “Truth and convention in Byzantine descriptions of works of art,” *DOP* 28 1974, 113–40.

the columns came from Cyzicus, Troad, and the Cyclades, and all were stockpiled for seven-and-a-half years.²⁷³ Whether this actually happened we cannot know, but the interesting points in the relation are as follows: leaving the marble-finding in the hands of powerful local subordinates (the Muslims did much the same); the far-flung locations for the marble; the notion that the porphyry columns came from Rome (a source of sophistication, and a pedigree?); the transport of these column on rafts (so much easier to load than boats; and finally the comment that these columns were matching—a comment indicating that this was seen as unusual. Of course, ‘matching’ is a relative term: in the Basilica Eufra-siana at Parenzo there are twelve different types among the forty new capitals, the new proconnesian shafts vary from 3.39m to 3.58m, and the bases also vary considerably.²⁷⁴ All this suggests both that juggling earlier materials to fit would have been very similar to dealing with variations in new stock, as at Parenzo; and also that we might assume that all the materials were selected from stockpiled production, since they were not rigorously sized before being brought on-site.

As well as building new, and arguably as part of a political program,²⁷⁵ the Byzantine Emperors also recycled classical elements in their buildings not only in Constantinople but in North Africa as well, as we are informed by both Procopius and some surviving inscriptions,²⁷⁶ as well as by scholarly surveys.²⁷⁷ Judging by our knowledge of sections facing the Sea of Marmara, much of the Great Palace was probably very rich in marble re-use, and more may be known as the sections of the palace are plotted against written accounts.²⁷⁸ Its decline was evident

²⁷³ Dagron, *Constantinople imaginaire*, 197.

²⁷⁴ Terry, Ann, “The sculpture at the cathedral of Eufra-sius in Porec,” *DOP* 42 1988, 13–64.

²⁷⁵ Mango, Cyril, “L’attitude byzantine à l’égard des antiquités grécoromaines,” in Guillou, A., et Durand, J., editors, *Byzance et les images*, (Paris, 1994), 95–120.

²⁷⁶ *Sodini, Jean-Pierre, “Marble and stoneworking in Byzantium, 7th to 15th centuries,” in Laiou, Angeliki E., editor, *The economic history of Byzantium: from the seventh through the fifteenth century*, (Dumbarton Oaks 2002), 129–146; on the web at <http://www.doaks.org/etexts.html>.

²⁷⁷ *Claude, D., *Die byzantinische Stadt im 6. Jahrhundert*, (Munich 1969); see 69–106 for monuments by type; Lepelley, Claude, *Les cités de l’Afrique romaine au bas-empire*, (Paris 1979), 345ff. for the decline of paganism as seen through building works 276–395 AD.

²⁷⁸ Recchi-Franceschini, Eugenia Bolognesi, “The Great Palace at Constantinople. An introduction to the main areas of activity, ground levels and phases of development,” in Jobst, Werner, & Kastler, Raymond, eds., *Neue Forschungen und Restaurierungen im byz. Kaiserpalast von Istanbul*, (Vienna 1999), 9–16.

even before 1204,²⁷⁹ though this does not necessarily mean that any materials went to Venice. Photographs survive of the Maritime Gate of the Boukoleon section.²⁸⁰ Other sections also displayed earlier slabs, for presumably the “speckled marble” and proconnesian used by Theophilos to pave the ambulatory of the Sigma (between 829 and 842) were not fresh-quarried.²⁸¹ There were enough materials to discard tessellated pavements in favour of large slabs, conceivably because of a desire to banish profane motifs;²⁸² but whether these slabs were fresh-quarried or from stockpiles it is impossible to know. Presumably some of these large slabs were themselves spoliated once more into the Sultan Ahmet Mosque, which displays its re-used pieces openly, and so thick and plentiful are some of the slabs lining the exterior that quarrying seems a distinct possibility. Sections of the Palace’s mosaic-marble floors survive, which Trilling dates to Heraclius (610–641) rather than Justinian (527–565), suggesting that their iconography offers a “political message of great complexity and power...embraces the nature of civilization, the emperor’s role in protecting civilization by protecting the empire.”²⁸³ Indeed, it seems the case that marble use in some later monuments was a conscious evocation of the past, just as the later churches of Rome imitate Early Christian ones.²⁸⁴ This is the case with the Boukoleon blocks, dated by Mango to the 10th century,²⁸⁵ which included blank marble doors similar to that in Haghia Sophia—so perhaps a deliberate quoting of the past. Similarly both splendour and decline, and the important place played in them by marble, are neatly encapsulated in the supposed Byzantine tradition (also recounted for the doges of

²⁷⁹ Kidonopoulos, *Bauten in Konstantinopel*, 155–8.

²⁸⁰ Mango, Cyril, “Ancient spolia in the Great Palace of Constantinople,” in Mouriki, Doula et al., eds., *Byzantine East, Latin West: art-historical studies in honor of Kurt Weitzmann*, (Princeton 1995), 649–57; see 649: “What interests us is the salvage and display of antiquities for the sake of their original decoration, a practice that implies an awareness of their inherent value as antiques.”

²⁸¹ *Bolognesi, Eugenia, “Il gran palazzo,” *Byzantinistica* II 2000, 197–242 for an overview.

²⁸² Maguire, Henry, “The medieval floors of the Great Palace,” *Byzantine Constantinople*, 153–74; see 159, 171.

²⁸³ Trilling, James, “The soul of the Empire: style and meaning in the mosaic pavement of the Byzantine Imperial Palace in Constantinople,” *DOP* 43 1989 27–72; see 30–1.

²⁸⁴ Ousterhout, Robert, “Architecture, art and Komnenian ideology at the Pantokrator Monastery,” *Byzantine Constantinople*, 133–50, for early themes in the opus sectile floor.

²⁸⁵ Mango, “Ancient spolia,” 648–9.

Venice) of the Emperor summoning masons with a selection of marbles so that he might choose the materials for his tomb.²⁸⁶

Such evocation of the past is to be seen in the land walls, and especially the Golden Gate (which might have started life as a free-standing triumphal arch).²⁸⁷ This uses lavish amounts of marble not seen elsewhere on the walls, except in the Sea Walls near to the Boukoleon Palace, only parts of which survive. The displays were no doubt in direct imitation of similar lavishness at some of the gates of the Aurelian Wall at Rome (such as Porta S. Sebastiano, Latina, & S. Paolo) in its 5th-century rebuild, for it is not known what the original gates at Rome looked like. The Constantinople walls impressed visitors from near and far, the more so since the Boukoleon Palace, its marble shining, could be approached from the sea, which lapped its walls in the early 19th century.²⁸⁸ Iznik imitates its extensive use of earlier marble. In far-off and marble-less Wales, the walls of Carnaervon castle are nevertheless so similar in profile and colour-banding to Constantinople²⁸⁹ that they must incorporate deliberate echoes of their marble/stone facings. The Golden Gate, all the columns, capitals and pedestals of which are old, was further embellished for effect with a series of bas-reliefs, possibly from the triumph of Nicephorus Phocas in 965.²⁹⁰ Inside its walls, there was a programmatic transformation of the city into a Christian one, with the building or renovation of baths, churches and piazzas.²⁹¹

Nor was Haghia Sophia the only church that was to set the tone in sophisticated spoliation. S. Polyeuktos was another which, as an earlier and smaller sister, was equally sophisticated, and was herself to supply

²⁸⁶ Nelson, Janet L., "Carolingian royal funerals," in Theuws, Frans, & Nelson, Janet L., eds., *Rituals of power from late antiquity to the early middle ages*, (Leiden 2000), 131–84: see 152 note 85 for details.

²⁸⁷ Bardill, Jonathan, "The Golden Gate in Constantinople: a triumphal arch of Theodosius I," *AJA* 103.4 1999, 671–96—and incorporated in the Land Walls by AD 413.

²⁸⁸ Lacretelle, Charles de, *Voyage pittoresque de Constantinople et des rives du Bosphore d'après les dessins de M Melling, architecte de l'Empereur Selim III*, 2 vols, (Paris 1819), unnumbered pages: "Vue du château des sept tours." The Boukoulcon appears as a large white entrance with arcades to either side, and two more storeys above.

²⁸⁹ The legendary burial place of Constantine. Cf. <http://www.castlewales.com/caernarf.html> built on top of a Roman fort, "It is difficult to escape the conclusion that Edward I was drawing upon symbolism, and turned for inspiration to the great city of Constantinople".

²⁹⁰ Mango, Cyril, "The Triumphal Way of Constantinople and the Golden Gate," *DOP* 54 2000, 173–88; see 186.

²⁹¹ Magdalino, Paul, *Constantinople médiévale: études sur l'évolution des structures urbaines*, (Paris 1996).

inspiration²⁹² as well as materials for later monuments, notably to Venice, but elsewhere as well.²⁹³ Basket capitals from Justinianic Constantinople are to be found in re-use in the Mausoleum of Sidi al Ghariani in Kairouan (with no evidence of how they got there), and a case could be made for that rebirth of architectural sculpture in 6th-century Egypt follows metropolitan example.²⁹⁴ The church was still functioning at the end of the 10th century, and it is suggested²⁹⁵ that it might have been abandoned during the Latin occupation—not coincidentally, perhaps, with the Venetian looting. Such a superb structure might have been echoed elsewhere, and Eastmond tells the strange story of Manuel I Komnenos evidently altering the structure of his Haghia Sophia at Trebizond after construction had started. This was because he wished to accommodate some recently obtained gems—namely “four matching monoliths of proconnesian marble, with fitted bases and basket style capitals”—convincingly related to S. Polyeuct as a luxuriously architectural way of “expressing political legitimization.”²⁹⁶ That suitable older materials might be available from a working, living city should not surprise us. Cassiodorus wrote (VII.6) of allowing semi-ruins in Rome to be targeted by marble-seeking spoliators—a practice Alice-Mary Talbot delightfully names as “deferred maintenance.” She notes that the Nicaean emperor John III Vatatzes (1222–54) supposedly rescued several churches awaiting this fate, including Blachernai,²⁹⁷ Rouphini-anai, and S. Michael at Anaplous, as well as funding work on the Holy Apostles, much damaged by earthquake.²⁹⁸ This burial church of the Emperors had been founded by Constantine, and encased “from the

²⁹² Sodini, Jean-Pierre, Barsanti, Claudia, & Guiglia Guidobaldi, Alessandra, “La sculpture architecturale en marbre au VI^e siècle à Constantinople et dans les régions sous influence constantinopolitaine,” in Cambi, Nenad, & Marin, Emilio, eds., *Congresso internazionale di archeologia cristiana* (Rome: 1998), II, 301–76; 317ff. for the atelier at S. Polyeucte and the spread of its products.

²⁹³ Strube, Christine, *Polyeuktoskirche und Hagia Sophia: Umbildung und Auflösung antiker Formen, Entstehen des Kämpferkapitells*, (Munich 1984); see 54 & Taf 12 for a S. Polyeucte capital in Damascus Kautsch No. 761 and a version in Cairo [could these have got there sold by the Venetian crusaders?].

²⁹⁴ Sodini, Jean-Pierre, et al., “La sculpture architecturale en marbre,” 334 & fig. 27; 307.

²⁹⁵ Mango, Cyril, & Sevckenko, Ihor, “Remains of the Church of St. Polyeuktos at Constantinople,” *DOP* 15 1961, 243–247; see 246.

²⁹⁶ Eastmond, Antony, *Art and identity in thirteenth-century Byzantium: Hagia Sophia and the empire of Trebizond*, (Burlington VT 2004); see 43ff. & figs. 19–20.

²⁹⁷ Kidonopoulos, *Bauten in Konstantinopel*, 150–4 for its post-1204 history.

²⁹⁸ Talbot, Alice-Mary, “The restoration of Constantinople under Michael VIII,” *DOP* 47 1993, 243–61; see 248. Kidonopoulos, *Bauten in Konstantinopel*, 99–103.

foundation to the roof with marble slabs of various colours.”²⁹⁹ Given what must have been a general attitude to old monuments, perhaps there were indeed near-ruined monuments the Venetians could spoliare after the Fourth Crusade. One index of local spoliation is Chalcedon, which Lacretelle complains has lost its name, its monuments and even its ruins.³⁰⁰

Ravenna

Ravenna shows us on a smaller scale what Constantinople might have looked like under Justinian, although the extent of local as opposed to metropolitan input to the architecture is disputed.³⁰¹ A large number of churches in Ravenna certainly received newly-quarried marble veneers during the 6th century,³⁰² and the material came from the East, especially from Proconnesus, but whether they were Imperial endowments or local gifts is unknown.³⁰³ These luxury imports, suggests Christie, contrasted with “the spolia generally evident in full Gothic period buildings.”³⁰⁴ We are unable to judge the effect sought, because the majority of churches have either gone, lost their veneer, or, like S. Vitale, had much of it replaced during “restoration.”³⁰⁵ But we do know that older materials were used in the oldest surviving church in Ravenna (S. Giovanni

²⁹⁹ Eusebius, *Church History*, IV.LVIII—though it is unclear whether these also covered the exterior.

³⁰⁰ Lacretelle, *Voyage pittoresque de Constantinople*, “Vue de Kadi-Kieui.”

³⁰¹ Brown, T.S., “Le chiese di Ravenna...,” *CCARB* 30 1983, 23–47: cf. 37–42 for the suggestion that the lavishness of Ravenna’s churches is due to local initiative. *Ricci, G., “Ravenna spogliata fra tardo medioevo e prima età moderna,” *Quaderni storici* 71 1989, 537–61.

³⁰² Guillou, A., “Ravenna e Giustiniano,” *CCARB* 30 1983, 333–43; 340: S. Apollinare in Classe, S. Michele in Afrisco, S. Stefano Maggiore, S. Giovanni in Marmorato; S. Agata Maggiore, SM Maggiore, S. Vitale, S. Andrea Maggiore, monasteries of S. Giacomo & S. Matteo at Classe.

³⁰³ Harper, James G., “The provisioning of marble for the sixth-century churches of Ravenna: A reconstructive analysis,” in Colella, Renata L., et al., eds., *Pratum Romanum: Richard Krautheimer zum 100 Geburtstag*, (Wiesbaden 1997), 131–48.

³⁰⁴ Christie, Neil J., “The archaeology of Byzantine Italy. A synthesis of recent research,” *Journal of Mediterranean Archaeology*, 2, 1989, 249–93; see 266. Cf. Novara Piolanti, Paola, “Elementi architettonici di reimpiego nella cripta della chiesa di S. Pier Maggiore (S. Francesco) in Ravenna,” *CCARB* 41 1994, 603–625.

³⁰⁵ Iannucci, Anna Maria, “La lunga vicenda dei restauri in San Vitale fra cantiere e carteggio,” in Martinelli, Patrizia Angiolini, ed., *La Basilica di San Vitale a Ravenna*, 2 vols (Modena 1997), 69–89.

Evangelista) as well as in the Mausoleum of Galla Placidia³⁰⁶—so perhaps old marble was used in building in the Justinianic period alongside newly-quarried marble imported from the East.

We can also get at least some idea of survivals and marble activities in 9th century Ravenna through the work of Agnellus, (born 805), who wrote an interesting and useful survey of the Church there, providing various practical examples of marble use.³⁰⁷ Bookish by nature, and interested in inscriptions, and exhibited a “reverence for writing, which in stone, mosaic, goldsmith’s work, and embroidery, turned Ravenna itself into a document and a book.”³⁰⁸ He was asked by his bishop to supervise the removal of a tombstone to be taken over the Alps, so that the masons would not break it. He notes that the marble bath of Bishop Victor (538–545) is still working “quod usque hodie mirifice lavat, et preciosissimis marmoribus pariete iunxit, et diversas figuras tessellis aureis variasque composuit, et tabulam descriptam literis aureis tessellates.” At Classis (in his day a dead city—in *civitate dudum Classis*) he saw a tomb made of precious proconnesian marble, and raised the cover with great effort. He notes the building activities of Maximian (546–557), including S. Andrea at Ravenna, “columnas marmoreas suffulsit, ablatasque vetustas ligneas de nucibus, proconisas decoravit.”³⁰⁹ And although his descriptions are usually formulaic, it is probable he could indeed recognize proconnesian, even if “all of it had been imported over 250 years before he was born.”³¹⁰

The importance of Ravenna for our theme is as a store of Eastern marble, and also as a user of older marble.³¹¹ Her reduced circumstances during the Middle Ages aided the survival of the monuments, and access to them was as possible for Charlemagne as it was to be for Alberti.³¹²—not to mention the Venetians, who kept 100 ships here

³⁰⁶ Zanolto, Rita, “Pratica di reimpiego architettonico in un capitale tardoantica: il caso di Ravenna,” *Ravenna da capitale imperiale a capitale esarcale*, (Spoleto 2005), II, 1143–50.

³⁰⁷ Agnellus, *Pontiffs*: references are to paragraphs.

³⁰⁸ Martínez Pizarro, Joaquín, *Writing Ravenna: the Liber pontificalis of Andreas Agnellus*, (Ann Arbor 1995), 84.

³⁰⁹ LP cap. 113, 66, 26, 41.

³¹⁰ Deliyannis, Deborah M., “Proconnesian marble in ninth century Ravenna,” in Emerick, Judson J., & Deliyannis, Deborah M (ed.): *Archaeology in architecture: Studies in honor of Cecil L. Striker*, (Mainz 2005), 37–41; see 38.

³¹¹ *Romanelli, Rita, “Reimpiego, tradizione e innovazione nell’architettura medievale di Ravenna,” *Arte Medievale* II X.1 1996, 30–45.

³¹² Ricci, Corrado, *Il Tempio Malatestiano*, (Milan 1924), 210–12 for Sigismondo’s

in Al-Edrisi's day.³¹³ The city itself was never abandoned, even if its port, Classis, seems to have gone into steep decline because of silting.³¹⁴ From Agnellus' account, and in spite of his own lament,³¹⁵ neither Ravenna nor Classis³¹⁶ can have been irrevocably dead architecturally (and Ravenna maintained theological importance) in the Carolingian period or after, for there was arguably some renovatio there under the Ottonians³¹⁷—an echo, as it were, of the Rome-led renewal in other parts of the Empire.

*Conclusion: marble and pilgrimage*³¹⁸

This account of the fate of marble in the ancient and Early Christian periods is a necessary background to later developments. When the Christians took over buildings, materials and symbols, they also took over earlier pilgrimage practices,³¹⁹ which had three important spinoffs for the history of marble use. The first is that pilgrimage is generated by relics, and Elsner reminds us (although he forgets vestments and other impedimenta) that Christianity's "only spolia were the bones of its dead," and goes so far as to suggest that "the adaptation of the culture of spolia to the cult of relics was a brilliant and daring leap,"³²⁰

plundering of Ravenna, especially S. Apollinare in Classe (which was a factor stated in his excommunication by Pius II), and 586 for a letter of complaint from a Ravenna lawyer, dated 1450. Also *Ricci, G. "Ravenna spogliata fra tardo medioevo e prima età moderna," *Quaderni storici* 71 1989, 537–61; see 545: "i brani di porfido, greco, paonazzetto, proconneso verde antico, serpentino: tutti marmi difficilmente reperibili fuori che nella cava ravennate;" and his depredations cost him 200 aurei, "subtratti fuerint, amoti, exportati et fracti nonnulli lapides marmorei."

³¹³ Al-Edrisi, *La géographie*, II, 247.

³¹⁴ Giovannini, Carla, & Ricci, Giovanni, *Ravenna*, (Bari 1985) for the silting up of Classis. cf. 49–79: "L'assedio delle acque immobili."

³¹⁵ "Ravenna misera, vicina destructae Classis," in his Verses, "De Sancto Severo" XI.13.

³¹⁶ Paul the Deacon's *Hist Langobad.* VI.XLIX says Liutprand besieged Ravenna and took Classis and destroyed it (not later than 725 AD?)—so presumably it was still a working port at this date.

³¹⁷ Rizzardi, C., "Rinnovamento architettonico a Ravenna durante l'Impero degli Ottoni: problemi ed aspetti," *XXXVII CCARB: L'Italia Meridionale fra Goti e Longobardi* (Ravenna 1990), 393–415; see 415.

³¹⁸ *Dubois, J., & Lemaître, J.L., *Sources et méthodes de l'hagiographie médiévale*, (Paris 1993), 247ff.

³¹⁹ Overview of the archaeology in *Christie, *From Constantine to Charlemagne*, 156ff.

³²⁰ Elsner, Jaes, "From the culture of spolia to the cult of relics: the Arch of Constantine and the genesis of late antique forms," *PBSR* 68 2000, pp. 149–84; see 159–60.

although any connection is difficult to chart. In less loaded terms, marble remains could be united with bone-remains, simply because the developing cult of saints and martyrs required the best materials for the shrines, namely marble, porphyry and luxurious fabrics. Pilgrimage required travel, and knowledge of architectural practices especially in the Eastern Mediterranean³²¹ must have been a spur for elegant construction back home, if not for the importation of materials. For we may assume that returning pilgrims reported on the appearance of the great shrines they saw abroad, since their itineraries often took them to marble-rich ancient ruins.³²² Thus along with “precious marble,” Otto had relics brought from Italy in the early 960s to Magdeburg, “And he ordered that relics of saints should be enclosed in all of the columns”³²³—perhaps at the very start of a trend, suggests Thietmar’s editor. Fulda’s Dommuseum preserves fragments of Iraqi or Egyptian lustre ware, from c.900.

Of course, the first target of pilgrimage in the West was Rome, where a series of spectacular basilicas was constructed, first among them Old S. Peter’s, described just as a classical poet would have described an imperial structure, with gilded roof and precious marbles; and then S. Paolo, with its Parian marble columns and mosaics.³²⁴ These were wonders which were signs of the veritable renovatio of the City in the name of Christ,³²⁵ with three of the Einsiedeln itineraries (which describes many of the Imperial monuments as standing) converging on the Roman Forum.³²⁶ Pope Damasus (366–84) had encouraged veneration by the *carmina* inscribed on marble tablets on 15 significant tombs; while ceremonies for the consecration of an altar, to include relics, date from Gregory the Great or earlier. Ring crypts (usually rich in marble columns and sometimes wall veneers) developed to manage pilgrims

³²¹ Caseau, Béatrice, Cheynet, Jean-Claude, & Déroche, et Vincent, *Pèlerinages et lieux saints dans l’antiquité et le moyen âge : mélanges offerts à Pierre Maraval* (Paris 2006), passim.

³²² Malamut, Elisabeth, *Les îles de l’empire Byzantin, VIII^e–XII^e siècles*, 2 vols, (Paris 1988), 538ff. & 656ff. for itineraries in text and maps.

³²³ Thietmar, *Chronicle*: II.17.

³²⁴ Lanciani, *Wanderings*, 149: “24 columns beautifully matched in size, colour, and finish, had been removed by Constantine or Valentinian from a single classic edifice; the other fifty-six were collected from various buildings;” some of these fragments were sliced into disks after the fire of 1823: see 158–9.

³²⁵ Reti Medievali: Miglio, *Massimo Roma: eclissi della memoria e costruzione del sacro, topos e progetto. La risignificazione*, (Roma 2001), 15–30; 16 for quote.

³²⁶ Meneghini, *Edilizia pubblica*, introduction.

smoothly.³²⁷ Another innovation was that Christian relics were portable, so that whereas classical-world shrines were anchored geographically, Christian ones could be multiplied to satisfy the need for veneration, by dividing up bodies so that sections could be distributed, a practice introduced perhaps in the 6th century.

The second spin-off is that pilgrimage provided a glue as persistent as marble itself for linking the Mediterranean together, and for giving Westerners knowledge of points East, where they went in large numbers,³²⁸ and provoked an architectural typology rich in marble echoing the earthly and the heavenly Jerusalem,³²⁹ the pilgrimage destination of the greatest popularity after Rome.³³⁰

The third spin-off is the product of the first two, for moving relics was to have an enormous impact on mediaeval architecture, marble usage and piety. Pilgrimage became big business, the shrines veritable Weapons of Mass Devotion (exhaustively and accurately documented), and there developed an alms race which saw ever-more-splendid shrines, and thefts of relics, which often moved from south to north.³³¹ Eventually pilgrimage generated the Crusades—not to mention ever-more-splendid churches which grew fat and decorative on pilgrimage. Relics could set the political topography of a whole region, even where marble was scarce or nonexistent,³³² but generally marble was needed in abundance for a good shrine, sometimes together with gold and silver as well as

³²⁷ Crook, *Cult of saints*, 13, 80ff.

³²⁸ Maraval, Pierre, *Lieux saints et pèlerinages d'Orient: histoire et géographie des origines à la conquête arabe*, (Paris 1985), 106ff.; Thomas of Farfa spent three years in Jerusalem and (before 697–8?) spent three years at Ephesus: cf. McCormick *Register* 55. Ephesus was the site of an important fair, first mentioned 795: McCormick; *Register* 229—and of course had important churches, especially that of Saint John.

³²⁹ Gatti Perer, M.L., ed., *La Gerusalemme celeste: la dimora di Dio con gli uomini: immagini della Gerusalemme celeste dal III al XIV secolo*, (Milan 1983), for a richly detailed overview.

³³⁰ *Menestò, Enrico, “Relazioni di viaggi e di ambasciatori,” in Cavallo, Guglielmo, et al., eds., *Lo spazio letterario nel medioevo: Il medioevo latino, I, La produzione del testo*, II, (Rome 1993), 535–600; see 537–50.

³³¹ The theft of the relics of the 5thc Epiphanius from the eponymous church in Pavia was organised by bishop Otwinus of Hildesheim in 964, against stiff opposition from a magical marble column: see Picard, *Le souvenir des évêques*, 260ff., and *Translatio S. Epiphani* BHL 2573, MGH SS 4.249–50. Again, the sarcophagus of the Blessed Lauricius was (temporarily) degraded on the instructions of the occupant himself, so that “some emperor whose name I do not know” lost interest in spoliating it: cf. Agnellus, *Pontiffs*, 36; from the description, the sarcophagus sounds like onyx, and probably set in a marble-walled chapel.

³³² Oberste, Joerg, “Heiligen und ihre Reliquien in der politischen Kultur der früheren Ottonenzeit,” *Frühmittelalterliche Studien* 37 2003, 73–98.

fabrics.³³³ For Moslems pilgrimage is a requirement if circumstances allow, and Al-Idrisi (1173–1251) widens the parameters, declaring it a “duty incumbent upon all pious believers to visit the mirabilia on earth, whether they be spectacular natural phenomena or stupendous architectural or artistic achievements by man (or by demons).”³³⁴ In other words, some works of architecture were so large that they could only have been built by demons, not by mere humans. If such rubbernecking never became a devotional duty in Christianity, the spirit of seeking out and marveling at wonders was much the same.

From the 4th century, older marble was used in increasing quantities for constructing the shrines of saints, and Maraval cites Eusebius on the splendours of some of the early sanctuaries, and Saint Theodoret of Cyrrhus on how temple materials were indeed consecrated by being so used.³³⁵ Marble floors were sometimes used to orient the pilgrims, as seen in a spectacular series of mosaics in Palestine, with the mid-6thC Madaba map including “mosaic postcard views” of the cities they would visit en route.³³⁶

Several pilgrimage destinations in the East (or their region) already had strong connections with marble.³³⁷ This is not coincidental, because these tended to be the seaports servicing quarries in the hinterland, and often with strong Christian communities as well as saints’ shrines.³³⁸ Cyzicus, near the quarries of Proconnesus, was a popular site, for the

³³³ Re-using ancient silverware may have been routine: cf. the Anglo-Saxon *Benedictio super vasa reperta in locis antiquis*, which asked the Lord to cleanse *haec vascula arte fabricata Gentilium*, some apparently re-buried in Christian graves: Wright, Thomas, “On antiquarian excavations and researches in the Middle Ages”, *Archaeologia* 30 (1844) 438–457; see 439–40.

³³⁴ Haarmann, Ulrich. “In quest of the spectacular: noble and learned visitors to the Pyramids around 1200 AD,” in Hallaq, Wael B., and Little, Donald P., eds., *Islamic studies presented to Charles J. Adams*, (Leiden 1991), 57–67. Menestò, “Relazioni di viaggi e di ambasciatori,” 589–600 for mirabilia.

³³⁵ Maraval, *Lieux saints et pèlerinages*, 199–200; Theodoret Therap. VIII.68: “Leurs matériaux (des temples) ont été consacrés aux sanctuaires des martyrs.”

³³⁶ Farioli Campanati, Raffaella, “I luoghi santi della Palestina secondo la documentazione musiva e gli oggetti devozionali,” in Donati, Angela, ed., *Dalla terra alle genti. La diffusione del Cristianesimo nei primi secoli*, (Milan 1996), 122–32.

³³⁷ Cf. entries for e.g. Constantinople, Jerusalem, Ephesus, Thessaloniki, Chonae, Nicaea, Smyrna and Myra in *Friedman, John B., & Figg, Kristen M., eds., *Trade, travel and exploration in the Middle Ages. An encyclopedia*, (NY/London 2000).

³³⁸ Malamut, Elisabeth, *Sur la route des saints byzantins*, (Paris 1993): 148ff. for Constantinople; 243ff. for sample itineraries and 299ff. for list of cities and ports traversed incl Antioch, Lydda, Alexandria, Carthage, Thessalonike, Kayseri, Antalya, Korykos, Corinth, and Jerusalem.

relics of Saint Tryphaine. Shrines were visited in Alexandria, and the Venetians appropriated the relics of Saint Mark—Arculf had seen the evangelist's marble tomb in a great church in the north-east of that city.³³⁹ On the south coast of Turkey, the shrine of S. Nicholas at Myra was popular from the early 5thC. It was called *martyrium* in 6thC, then *church* or *temple*, the proof of the cult's strength being the ornamentation of the present church built by Constantine Monomachos in the 11thC.³⁴⁰ At Letoon (Lycia) a basilical church 30 × 20m was built next to the abandoned nymphaeum, with the altar on a column stump, veneer on the walls; and opus sectile on the floor.³⁴¹ Was pilgrimage here just a follow-on from the famous classical sanctuary? Similar sites were still being visited by pilgrims in mid-12th century.³⁴² And pilgrimage to the Holy Land was popular from the early 4th century, when it was organised as a tourist business, funding the opulence of the churches, "which shone with gilding, mosaic and marble."³⁴³ Moslem shrines were also located in ancient cities such as Alexandria, Antioch, Cyrrhus, Baalbek and Diyarbakir,³⁴⁴ some of which surely had guided tours, like the cemeteries of Cairo.³⁴⁵

From the above it is clear that travel to shrines was commonplace during the Middle Ages and, for obvious reasons, develops and expands in step with shipping and trade (to such sites as Miletus—Palatia).³⁴⁶ A consequence of mediaeval knowledge of the shrines and sites of the Mediterranean is architecture and decoration that often recapture

³³⁹ Wilkinson, John, ed., *Jerusalem pilgrims before the Crusades*, rev. ed., (Warminster 2002), 198: "It stands in front of the altar...and has above it a monument made of marble slabs."

³⁴⁰ Maraval, *Lieux saints et pèlerinages*, 191, 315ff., 386f. Borchardt, Juergen, ed., *Myra. Eine Lykische Metropole in antiker und byzantinischer Zeit*, (Istanbuler Forschungen 30), (Berlin 1975), 301–59 for the church, and 360–428 for its decorative elements, with details of the material used.

³⁴¹ Foss, Clive, "The Lycian coast in the Byzantine age," *DOP* 48 1994, 1–52:13.

³⁴² Hill, Joyce, "From Rome to Jerusalem: an Icelandic itinerary of the mid-twelfth century," *Harvard Theological Review* 76.2 1983, 175–203—by Abbot Nikulas, who was in the Holy Land before 1153; he went via Rhodes, Patera and Myra, and back via S. Gilles du Gard.

³⁴³ Hunt, E.D., *Holy Land pilgrimages in the late Roman Empire AD 312–460*, (Oxford 1982); quote from 143; and see 128–54: "Jerusalem or Babylon? Relics, tourism and wealth."

³⁴⁴ Al-Harawi, *Guide*, 117, 13, 21–2, 10 & 145–6 respectively.

³⁴⁵ Massignon, Louis, "La cité des morts au Caire," *BIFAO* 57 1958, 25–79; see 38ff. for guidebooks and tours from the 13th century.

³⁴⁶ Heyd, *Commerce*, I, 544f. In Islam the term can also signify old monuments: cf. Sourdel D., in *El Balat*.

stylistic reminiscences from far away, as we shall see in later chapters. Marble links the lavishness of Roman building to that of Christian shrines, where a standard is set which will last through our period, and demand its use where possible, even to its import over great distances. The cult of relics mushroomed following the idea that holy bodies could be fragmented; and the practice of requiring a relic for the consecration of an altar made the cult a vector for the continuing use of marble as decoration. This chapter has dealt largely with Rome, but pilgrimage necessarily extended to other holy sites further east including Jerusalem—to areas soon to be under the control of Islam. Such journeys introduced Westerners not only to the new religion, but also to many ruined Roman cities where Christian shrines were located. We shall discover in subsequent chapters that such travel (often accompanied by commerce) was important in revealing marble, just like Christianity, as a Mediterranean-wide phenomenon rather than one focused solely on the city of Rome.

PART TWO

LOGISTICS AND FASHIONS

CHAPTER THREE

QUARRYING, TRANSPORT AND PREPARATION OF MARBLE IN THE MIDDLE AGES

Introduction

Mediaeval builders wishing to use marble had to quarry it from the ample workings left by the Greeks and Romans,¹ find suitable materials (and, if necessary, rework them), or find classical stockpiles of fresh material. It probably presented greater extraction difficulties than limestone, a layered material. At some stage the marble had to be transported,² preferably by sea, and finally prepared for use. This chapter addresses these elements in order, distinguishing at every stage between Christianity (East and West) and Islam, where conditions and even skills seem to be different, and where marble and limestone were certainly quarried during our period. Mediaeval authors were well aware of both extraction and transport problems. For example, Patriarch Denis of Tell-Mahre went to Egypt ca.827, and admired the obelisks at Heliopolis: “Worthy of admiration, they are not of soft stone but of a kind of marble. The mind is stunned to imagine how they were cut, by what means they were brought to this plain, when a thousand men could not lift them up a finger’s breadth.”³ Throughout this chapter we should bear in mind the slippery nature of the terminology. “Quarry” (late Latin *quadraria*) refers to squared blocks, as well as to the action of cutting them—so it would not be illogical to refer to stockpiled blocks

¹ *Dworakowska, Angelina, *Quarries in ancient Greece*, (Wrocław etc. 1975); *ibid.*, *Quarries in Roman provinces*, (Wrocław etc. 1983), for excellent surveys each with detailed index, but strictly antique. Dodge, Hazel, “Ancient marble studies: recent research,” *JRA* 4 1991, 28–50: 28–32 for quarrying techniques & expertise.

² For a suggestion that 3D sculpture declined because of transport difficulties, see Hannestad, Niels, “How did rising Christianity cope with pagan sculpture?” in Chrysos, Evangelos, & Wood, Ian, eds., *East and West: Modes of communication*, (Leiden 1999), 173–203; see 173, 202.

³ The Chronicle of Michael the Great, in Yousif, Ephren-Isa, *Les chroniques syri-aques*, (Paris 2002). *Al-Gharnati, Voyage*, 69: the statues were erected for Solomon, by the djinns.

(often at points of extraction, of course), or indeed to the squared blocks to be found at ancient sites—as “quarries.”

From what follows it will seem reasonable to conclude that quarrying took place only when insufficient architectural members, or blocks that could be re-cut, were available. And much already cut material was indeed to be found. Nasir-i Khusrau visited the area of Beirut in 1047, and admired the marble triumphal arch, which he was told was a gate to Pharaoh’s garden. He noted that “The whole plain thereabouts abounds with marble columns, capitals and bases, all of carved marble—round, square, hexagonal and octagonal—and of a kind of stone so hard that iron makes no impression on it. Yet there is no mountainous terrain nearby from which the stone might have been quarried, and all other stone there is soft enough to be hewn with iron. In the outlying regions of Syria there are five hundred thousand of these fallen columns, capitals and bases, and no one knows what they were from or from where they were brought.”⁴ Nasir-i Khusrau is interesting in that he is something of a connoisseur of stone building, lead cramps, and the like.⁵ Indeed, sometimes he seems to think in quarrying terms as when, in 1048, he admires Akhmin (Egypt) for its large stone blocks: “What is really amazing is that there is no mountain or quarry within ten or fifteen parasangs [60–90 kilometres] of this place, so you wonder from where and how they were brought here.”⁶ Some “quarries” were closer at hand. At Bodrum, the Knights began their castle in 1406 or 1407, though supposedly did not recognize the site of the Mausoleum until c.1494, when they began to use the ruins as a quarry.

Quarrying in the Middle Ages: the outline argument

The quarrying of marble and other stones by the Romans⁷ was often a smoothly industrialised process feeding projects large and small, and keeping stockpiles filled, some of them large. Given the archaeologically

⁴ Nasir-i Khusrau, *Travels*, 15. The stone which broke iron tools is a *topos*, and probably a reference to porphyry, which split iron chisels in the 16th century.

⁵ Al-Edrisi, *La géographie*, 297: he admired the “Lighthouse of Alexandria” for the same reasons: “il est fait d’excellentes pierres de l’espèce dite Kedan, les assises de ces pierres sont scellées les unes contre les autres avec du plomb fondu et les jointures tellement adhérentes, que le tout est indissoluble.”

⁶ *Ibid.*, 63.

⁷ Blümner, Hugo, *Technologie und Terminologie der Gewerbe und Künste bei Griechen und Römern*, III: *Die Arbeit in Stein*, (Leipzig 1884) is useful for the ancient sources; 8ff. for

demonstrated downturn in civic life during the earlier Middle Ages, it has been assumed that no marble was quarried until about the end of the eleventh century, hence that all materials used between perhaps then and the fourth century⁸ were therefore necessarily in re-use. This has been explicitly stated for Islamic lands,⁹ and it is sometimes implied that re-use caused the quarries to close.¹⁰ It is true that there are plenty of buildings displaying easily identifiable antiquities, mostly brick and tile, with a certain amount of marble, that there were few large buildings erected in the Christian West during the period 600–1000, and that low population levels meant little interest in or need for quarrying, fewer resources for distribution, lower skill levels, and so on. If there was no quarrying, then any consideration of re-use becomes less interesting than if materials were indeed quarried because, complete reworking apart, it eliminates the possibility of *choice*—of discrimination between two or more ways of getting a building erected or decorated. Nevertheless to choose marble monoliths over the easier and simpler support provided by pillars was already discrimination in favour of fine materials and even perhaps some interest in their original use. If Benazzi¹¹ is correct that the marble edicola in the Tempietto sul Clitunno (near Spoleto) is not in re-use (although a lot of the other material is), and if it is indeed datable to the late 6thC or the early 7thC, was it fresh-quarried, or was it fashioned from some available block? Many quarries might have been inactive, but there would be plenty of castoffs lying around for the taking. If marble was so highly prized that antiquities were used, and often re-cut (more, by definition, than we can ever know), then surely they were prized enough for quarries to be worked, especially as building tastes moved from brick to stone.

How can we tell whether a marble quarry was or was not in use 1000 or 1500 years ago? Documents do not exist, unless we count the quarries themselves as such, and later activity will often have destroyed

succinct summaries of quarries and different types of marble, and 159ff. for interior and exterior decoration, including polychromy.

⁸ DeLaine, Janet, *The Baths of Caracalla: A study in the design, construction, and economics of large-scale building*, (London 1998), 96–97: quarries were still going “well into the 3rd century and beyond.”

⁹ Goodwin, Godfrey, “The reuse of marble in the eastern Mediterranean in medieval times,” *Journal of the Royal Asiatic Society of Great Britain and Ireland*, 1977.1, 17–30.

¹⁰ Wright, George R.H., *Ancient building technology*, (Leiden 2000), 132.

¹¹ Benazzi, G., ed., *Il dipinti murali e l'edicola marmorea del Tempietto sul Clitunno*, (Spoleto 1985).

evidence. The archaeological detritus approach is more promising, and finds have been made in French quarries, as we shall see. Graffiti have been found in the Near East but not (as far as I am aware) in post-Roman workings in Europe. Because of these difficulties, and because so little is known about building practices c.500–1100, the extent of mediaeval quarrying is a contentious but crucial topic when dealing with possible relationships between re-used and fresh-quarried material.¹² Kidson suggests that in Italy “classical spolia kept the decorative arts supplied with material until the end of the thirteenth century; but the marble quarries of the Apuan Alps were reopened to clad the walls of Pisan and Florentine churches.”¹³ This is likely for limestone, given the quantities needed for the Florence complex. It might also have been the case for marble: the Florence Baptistery uses large amounts of veneer but, as with some of the capitals, it is difficult to know whether this is material from the 6th–7th-century building it replaced, fresh-quarried or restoration. There is the same dilemma with the façade of S. Miniato al Monte.

These arguments and questions will be developed below, and evidence adduced to demonstrate active quarrying in the Islamic world, its likelihood in Byzantium, and the occasional pick swung and wedge inserted in the West. The argument that no marble was quarried in the East after Justinian and before the 15th century is in part perverse, ignoring both the huge quantities of stone required for fortresses and civic buildings, and the technological skill manifested in building and transport, as well the cutting of marble for the adornment of, especially, mosques and pious foundations in cities such as Konya and Bursa. Louis Robert believes that workmen were sent to the Synnada quarries in Phrygia to saw blocks and veneer slabs, because a letter from Leo of Synnada (937–ca. 1003) reflects both this activity and the renown of the local quarries. He buttresses this with the assertion that the Bishopric of Dokimeion (40km from Synnada) has also yielded Christian inscrip-

¹² Although the later the more documented: cf. Salamagne, Alain, “L’approvisionnement en pierre des chantiers médiévaux: l’exemple de Douai (Nord) aux XIV^e et XV^e siècles,” *Archéologie Médiévale* XXVI 1996, 45–76, on the politics supply of materials, and their close relation to the infrastructure of road and river; 51 for black stone from Tournai; 51–3 for transport; and 53–4 for the systematic reuse of materials from earlier buildings.

¹³ Kidson, Peter, “Architecture and the visual arts,” in Luscombe, David, et al., editors, *New Cambridge Medieval History*: Volume 4, c.1024–c.1198, Part 1, (Cambridge 2004), 693–731: see 699.

tions of which several are from Byzantine times.¹⁴ In response the editor of Synnadás' letters is cautious,¹⁵ because the term in question is not otherwise attested as meaning "marble cutter" (it usually designates a wood cutter), and Robert cannot demonstrate the quarry was actually in production. But she quotes him to the effect that the latest attested use of Synnada marble was in the Sacred Palace built by the Emperor Theophilus in the second quarter of 9th century,¹⁶ suggesting that she accepts that the quarries were then still in operation. Waelkens accepts that the letter does indeed refer to marble cutters,¹⁷ linking it to the late Empire tendency to saw revêtement sheets at the quarry (to be seen at both Dokimeion and Proconnesus), direct at the face, instead of sending out stepped blocks. He suggests that this was done because expertise in such delicate sawing was not available at the usage end—precisely the point of the letter. In the 1830s Texier suggested that the approach roads became unusable during (later) Byzantine times, indicating a stop to quarrying.¹⁸ Again, Dolci concedes some quarry activity in Greece and Asia Minor until the middle of the 12th century—but that Luni had ceased production by the 6th century.¹⁹

Evidence for mediaeval quarrying

Evidence of mediaeval quarrying in the West has only recently been sought, but does exist²⁰—although later extraction often obliterates any chance of finding mediaeval evidence (as at Macael, Spain).²¹ Questions have to be seen as important before people set out to try and answer

¹⁴ Robert, Louis, "Les kordakia de Nicée, le combustible de Synnada et les poissons-sciés. Sur des lettres d'un Métropolitain de Phrygie au X^e siècle. Philologie et réalités," in his *Opera Minora Selecta* VII (Amsterdam 1990), 71–140 (ex *Journal des Savants* 1962 5–74), 100–105.

¹⁵ Vinson, Martha Pollard, ed. & trans., *The correspondence of Leo, Metropolitan of Synnada and Syncellus*, (Washington DC 1985), letter 45.

¹⁶ Theophanes Continuatus' account in Mango, *Sources and documents*, 161–5.

¹⁷ Waelkens, Marc, "Carrières et marbres en Asie Mineure," *Les Dossiers d'archéologie* 173 1992, 22–9: see 26–7.

¹⁸ Texier, *Asie Mineure*, 432–4.

¹⁹ Dolci, Enrico, "La cultura del marmo," in Giusti, Anna Maria, ed., *Eternità e nobiltà di materie: itinerario artistico fra le pietre policrome*, (Florence 2003), 105–38; see 106.

²⁰ Cf. Bessac, Jean-Claude, *La pierre en Gaule Narbonnaise et les carrières du bois de Lens (Nîmes)*, (Ann Arbor 1996), 237ff.

²¹ Mayer, Marc, "L'exploitation des ressources lapidaires en Hispanie," *Les Dossiers d'archéologie* 173 1992, 16–20. But cf. Acien Almansa, Manuel, & Cressier, Patrice, "Las inscripciones árabes de Senés (Almería)," in his *Estudios de arqueología en Almería*,

them, and today's higher profile for conditions of mediaeval life has helped. As a result there are both the French "Limestone Project,"²² and the close study of—for example—the use of Roman roads to shift materials from quarries at Bruère-Allichamps and Vallenay to Bourges for the new cathedral.²³ Some quarries under and around Paris appear never to have closed, with more opening from the 12th century.²⁴ Some accounts do not make it clear whether the stone found was quarried or from Roman monuments, whilst others do.²⁵ In Tuscany, Bartelletti and his colleagues have compiled fascinating tables demonstrating the use in churches (mostly 12th century onwards) of quarried stones and marbles, the majority of which are no more than 2km distant from the quarried source.²⁶ In Provence, one might perhaps expect Roman marble to be lavishly re-used in Romanesque buildings. However, this is not the case, because of the availability of local limestone, and perhaps from observing how the Romans used the stones together.²⁷ Thus at S-Gilles-du-Gard, the material from the limestone quarries to the north was brought by boat, via the Petit Rhône, to the very port of S. Gilles. At Arles, likewise, the S. Trophime tympanum is in local

(Maracena 1992), 225–39, including 232ff. an early 12thC funerary inscription in white marble "posiblemente procedente de las proximas canteras de Macael."

²² French, Jean M., "From Perigord to the Paris Basin: compositional characterization of medieval French limestones," *Gesta* 33.1, 1994, 53–9—an excellent *état de la question*. The Limestone Project is concerned with objects extracted from their context to sit in museums, rather than with re-use.

²³ Blanc, Annie, et al., "Les pierres de la cathédrale de Bourges," *Archeologia* 171 1982, 22–35: see 32–3.

²⁴ Vire, Marc, "Les anciennes carrières de pierre à Paris au Moyen Age," in Benoît, Paul & Braunstein, Philippe, *Mines, carrières et métallurgie dans la France médiévale*, (Paris 1983), 395–407.

²⁵ Mortet, *Recueil*, 66: Bishop Gerard (1023–30) for the rebuilding of Cambrai: "in vico quem dixit antiquitas Lesden [Lesdain, near Marcoing], qui quarto miliario ab urbe secedit, aperta terra, juxta votum lapides columnares invenit. Nec solum ibi, sed etiam propius, in villa videlicet Nigella [Noyelles, near Marcoing] fodiens, aliud genus bonorum lapidum se reperisse laetatur." *Ibid.*, 172 (1081) for the rebuilding of S Pierre at Oudenburg, near Bruges: while near Tournai, looking for stone, "In partibus vero aquilonis fundamentum quadris ac magnis lapidibus, ferro et plumbo firmiter infixis, antiqua fundaverat manus." *Ibid.*, 394 Reconstruction of the Abbey of Andres (near Boulogne) after a fire, here describing the work of 1197: "Denique, de Tornacensi civitati ad claustrum constructionem magna strues marmorum per flumina et per terras huc advehitur"—the different routes perhaps suggesting old marble."

²⁶ Bartelletti, Antonio, et al., "Il marmo nella Versilia del medioevo: risultati da una prima indagine archeometrica," *Acta Apuana* IV–V 2005–2006, 59–77.

²⁷ The Trophée des Alpes, at La Turbie, has masonry and column-shafts built out of white limestone from quarries some 700m distant, with the marble decoration from Carrara.

limestone (from some 25km to the north-west), but other elements are re-used. The lintel and the capitals supporting it are in Carrara; the columns between statues are again limestone, there is Elba granite (as also at Saint Gilles), and the central pillar in greyish granite is perhaps from the Troad—in all a colourful (and possibly all-re-used) assembly, but with the sculpture much less sharp and glowing than at S. Gilles du Gard, where much more marble is used.²⁸ In the cloister, the colonettes and capitals are all in white marble, the latter presumably recut from column-shafts.²⁹ In both cases we can only date the use of the quarries from the supposed (and usually contentious) date of the churches. The same applies to the Saint-Béat quarries: the 12thC church there is not surprisingly of the local marble; and this is also used at S. Just de Valcabrière as paving slabs³⁰—so perhaps Saint-Béat was being quarried again in the earlier 12th century. Certainly, Villefranche-de-Conflent had its church porch embellished with the local marble in the 1130s.³¹ Pagniez identifies marble from Céret in the portal of S. André at Saint-André-de-Sorède, dated c.1030.³² The Priory of Sainte Marie de Serrabona (Pyrénées Orientales), enlarged and reconsecrated in 1151, represents the very best of Roussillon art, with a portal and cloister columns and capitals of marble, apparently done by a chantier seen also at Urgell. Once again this is pink Conflent marble. In 1082, the counts of both Cerdania and Conflent gave permission to Augustinians to occupy the priory—and it was marble from their own quarries that was used beautify the church.³³ If such small French quarries were operational at this date, it would be strange if Carrara were not—although her present Duomo was started only in 1130. The Bishop of Luni was granted imperial diplomas by Frederick Barbarossa in 1183 and 1185 giving him “Curtem Carrariae cum Alpibus lapicidinis etiam marmorium

²⁸ Pomerol, *Terroirs et monuments*, 314–15. Note that S. Trophime has been much freshened-up in recent years, making the figures look newly carved. What is the source of the colonettes and capitals in the cloister?

²⁹ Pomerol, *Terroirs et monuments*, 308–19.

³⁰ *Ibid.*, 320–9.

³¹ Ebbenhorst Tengbergen, Daphe van, “L’emploi du marbre rose et de la griotto de Villefranche-de-Conflent à travers quelques exemples de portails et baies d’églises du Conflent, du XI^e au XIII^e siècle,” *Cahiers de Saint-Michel de Cuxa* 31 (2000), 151–4.

³² Pagniez, Lisabelle, “Le marbre de Céret: un matériau complexe et méconnu de la production artistique roussillonnaise (XI^e–XV^e),” *Cahiers de Saint-Michel de Cuxa*, 31 (2000), 171–84.

³³ Summary, plan and images at <http://www.cg66.fr/culture/patrimoine/serrabone/index.html>.

cum montibus,”³⁴ so perhaps we can assume quarrying had started several years previously.

The Balearics (with quarries by the sea) and the Minervois might have been producing early, though there are no dates.³⁵ Sometimes (as when large quantities of a certain stone turn up at one site) the evidence forces a re-think. Thus Lorenzo Lazzarini suggests that there is so much proconnesian marble at Venice that it must have been quarried fresh.³⁶ In fact, Al-Fida (1273–1331) writes that Marmara is “thus called from the marble extracted there,”³⁷ if any trust can be placed in his use of the present tense (“qu’on y exploite”) in the French translation. Dating quarry-use is indeed difficult, but Bessac has demonstrated activity in quarries near Nîmes, and illustrates “cylindres abandonnés en cours d’extraction sur le chantier du haut moyen âge”³⁸—which suggests that these extractions were for column drums. He believes the rare early mediaeval extractions were largely for sarcophagi, and that “l’extraction individuelle et parasitaire prédomine”³⁹—just the kind of casual use likely to be missed unless specifically sought. By the end of the 12th century, some French marble quarries appear to have been in use.⁴⁰ In Italy, Quiros Castillo affirms that stone quarries near Lucca were in operation in the end-8th–early-9th centuries.⁴¹ And Franzini, making his points by charting growing confidence in cutting and design,

³⁴ Jervis, W.P., *The mineral resources of Central Italy*, (London 1868), 7.

³⁵ *Bessac, Jean-Claude, “L’archéologie des carrières de pierre de taille en France méditerranéenne,” in Miskovsky, Jean-Claude, & Lorenz, Jacqueline, eds., *Pierre et archéologie*, (Perpignan 2002), 15–44; and Blanc, Annie, “Les principales carrières de pierre à bâtir du Languedoc et leur utilisation dans les monuments,” in *ibid.*, 45–68; 48–51 for *les calcaires marbriers du Minervois*.

³⁶ In a review of *Marmi Antichi* in *Bollettino di Archeologia* 5/6 (1990), 256–68 especially 261.

³⁷ Reinaud, Joseph Toussaint, ed., *Géographie d’Aboulfèda*, (Paris 1848), I.41.

³⁸ Bessac, *La pierre en Gaule Narbonnaise*, 237ff. for Merovingian and subsequent use; fig.51 for abandoned cylinders.

³⁹ Bessac, Claude, “Pierres de taille: archéologie et technique,” in Bessac, Claude, et al., *La construction. Les matériaux durs: pierre et terre cuite*, rev. ed., (Paris 2004), 36–9.

⁴⁰ Deloffre, Raoul, et al., *Les églises romanes des Pyrénées Atlantiques: leurs matériaux de construction*, (La Rochelle 1992); 64ff. for the marble of Louvie-Soubiron, used in churches at Beost (end 12thC apse), Assouste (end 12thC), Oloron-Sainte-Marie (portal end 12thC, marble from Gere-Belesten).

⁴¹ RM: *Quiros Castillo, Juan Antonio, *Modi di costruire a Lucca nell’alto medioevo: una lettura attraverso l’archeologia dell’architettura*, (Siena 2002), 111. Cf. chap 4 le forze produttive: p. 12: le prime cave, documentate con il termine di “marmoraie,” siano note dalla fine del X secolo. Al momento non è possibile sapere se le “marmoraie” siano da identificare con cave di pietra da taglio, oppure, facciano riferimento alle caratteristiche geolitologiche dei materiali.”

believes marble extraction at the Monti Pisani began in the mid-eleventh century, and in the twelfth century for the Apuan Alps and Campiglia. He further contends that limestone extraction was continuous,⁴² and used in large quantities (requiring the digging of a canal) for the upper parts of the original Pisa Duomo (later 11th century) and almost entirely for the extension built after 1118.⁴³ Using the same measures, he notes several near-three-metre blocks in tower-houses in Pisa, and large blocks from the Monti Pisani in the E end of the Duomo, from which he concludes that all these are old blocks, being too large for contemporary quarrying and transportation techniques.

In the Carolingian Empire, there is a good chance that black “marble” was being quarried. The documents are as usual silent on intention, but the Epitaph for Pope Hadrian I, with verses probably written by Alcuin, and then incised in square capitals which imitate the Roman Imperial style, could well have been fresh-quarried. It has recently been shown to be made from a Mosan “marble,” cut in the vicinity of Namur.⁴⁴ Commissioned by Charlemagne after the Pope’s death in 795 (or earlier? he was supposedly very old), it is seen as a demonstration of the *romanitas* of Charlemagne’s circle, and a stylish political statement on Charlemagne’s route to receiving the Imperium. Morison remarks that nothing like this inscription was possible in Rome in the ninth century.⁴⁵ We might wish to amend this to “nothing similar having survived.” Certainly, its creation is a highly unusual coals-to-Newcastle inversion of the usual spread of culture from the centre to the periphery, and hence perhaps the declaration of a new centre. The contemporary Lorsch Annals for 795 say the “*ebitaffium...iussit in Francia fieri*,” with the strong implication that the epitaph was not only written in Francia but the stone also sourced there. Charlemagne’s well-read advisors surely knew that rulers directed water into canals, and moved mountains by quarrying. Given its large size, it seems unlikely that the

⁴² Franzini, Marco, “La ripresa, in epoca medievale, dell’estrazione del marmo nella Toscana costiera, *Acta Apuana* IV–V 2005–2006, 45–57. Cf. 56 for a table of the various stones used in Lucca and Pisa.

⁴³ Franzini, Marco, & Lezzzerini, Marco, “The stones of medieval buildings in Pisa and Lucca provinces (western Tuscany, Italy). 1—The Monte Pisano marble,” *Eur. J. Mineral.* 2003, 15, 217–224.

⁴⁴ Story, Joanna, et al., “Charlemagne’s black marble”: see 165, 183.

⁴⁵ Morison, Stanley, *Politics and script. Aspects of authority and freedom in the development of Graeco-Latin script from the sixth century B.C. to the twentieth century A.D.*, (Oxford 1972), 143, 170ff.

epitaph panel was antique, and the likelihood that Charlemagne opened a quarry is reinforced by King Offa's request for black stone, to which Charlemagne responded by letter.⁴⁶ Hincmar of Rheims advised use of the same or of marble for building altars,⁴⁷ and a somewhat similar stone, the black limestone-marble from Tournai, found favour for fonts as well, for example at Lincoln. From this McCormick concludes that such materials might have been generally available in Champagne, "presumably not due to generalised largesse," and astutely suggests that when a man in Belgium donated two slabs of red marble to a church and specified their price, this should surely mean that such items were traded.⁴⁸ Peacock⁴⁹ suggests that it might have been columns Offa was seeking, and the phrase in his letter "wherever they may be found" could refer to open-cast quarrying just as well as to chance-discovered antiquities. Since most quarries are open-cast, consisting of small useful outcrops scattered around, this is not unlikely.

For Byzantium, quarry-questions relate to earlier periods. Sodini believes stone was quarried perhaps in Phrygia in the 10th and 11th centuries and in certain quarries with a local market. He concludes, however, that Psellos' characterisation of Romanos III Argyros (1028–34) (who built a grand church in imitation of both Solomon and Justinian) as attempting in his architecture to rival Justinian, "so that every mountain was excavated, and the art of the quarrier prized more highly than that of philosophy itself" was mere hyperbole.⁵⁰ On Chios, Malamut says Nea Moni has local revêtements, thereby proving 11th-century use of the quarries. However, none were open on Paros, hence that island's reliance on old blocks,⁵¹ not least in the creation of Parikia Castro, which is built entirely from them. Uncertainty is understandable, so that Cormack is naturally ambivalent about whether the proconnesian sheets at S. Catherine on Sinai were fresh-quarried,

⁴⁶ Alcuin *Ep.* 100, 145.36–9.

⁴⁷ *Capitula synodica* III.3, PL 125.794C of perhaps 796.

⁴⁸ McCormick, *Origins*, 700.

⁴⁹ Peacock, D.P.S., "Charlemagne's black stones: the re-use of Roman columns in early medieval Europe," *Antiquity* 71 (September 1997) pp. 709–15.

⁵⁰ Sodini, Jean-Pierre, "Marble and stoneworking in Byzantium, 7th to 15th centuries," in Laiou, Angeliki E., ed., *The economic history of Byzantium: from the seventh through the fifteenth century*, (Washington DC 2002), 129–146; see 138ff.; on the web at <http://www.doaks.org/etexts.html>.

⁵¹ Malamut, Elisabeth, *Les îles de l'empire Byzantin, VIII^e–XIII^e siècles*, 2 vols, (Paris 1988), 393.

or taken from a stockpile, perhaps at Jerusalem.⁵² A fantastic account of the construction of Haghia Sophia (8th–10th century?), already mentioned, has Justinian demolishing Constantine's church, and the materials put on one side, since those collected by the Emperor himself were sufficient⁵³—so perhaps making stockpiles from old buildings was routine. How long, indeed, did Proconnesus keep going? Certainly well into Late Antiquity,⁵⁴ although topoi muddy the waters. Psellus is of dubious help, for the account already quoted continues with “of the stones thus obtained, some were split, others polished, others turned for the sculptures, and the workers on these stones were reckoned with the like of Pheidias and Polygnotus and Zeuxis.”⁵⁵ Hacking away the hyperbole, this might be read as confirming that quarrying was indeed in progress, but that good workmen were scarce. Paribeni, however, observes that the insistence with which marble quarries are mentioned in Byzantine descriptions could well be read as meaning they remained open “in pieno periodo bizantino”—but then notes the existence of the selfsame topos in classical descriptions, such as those of Sidonius Apollinaris in the 5th century.⁵⁶ Melucco Vaccaro believes no quarries in the West kept going, except for Aquitaine in the Merovingian period; but that Proconnesus and Thasos did keep working.⁵⁷ A visit to Aliko, on Thasos, demonstrates how easy extraction was there, for the beds are washed by the sea (some of them are now under the water), and blocks could be loaded immediately onto boats. Already Heyd⁵⁸ had suggested that Paros was operating in the Middle Ages, and sending marble to Venice. Cyriacus visited Paros in 1444, marvelled at the antiquities, and

⁵² Cormack, Robin, “The Visual Arts,” in Cameron, Averil, et al., editors, *The Cambridge Ancient History*, XIV: Late Antiquity: Empire and Successors A.D. 425–600, (Cambridge 2000), 884–917; see 911.

⁵³ Dagron, Gilbert, *Constantinople imaginaire. Etudes sur le recueil des “patria,”* (Paris 1984), 197.

⁵⁴ Asgari N., “The Proconnesian production of archtural elements in late antiquity, based on evidence from the marble quarries,” *Constantinople and its Hinterland (ByzZeit* 90, 1997) 263–288.

⁵⁵ *Chronographia*, ed. J.M. Hussey: cf. <http://www.fordham.edu/halsall/basis/psellus chrono03.html>.

⁵⁶ Paribeni, A., “L'uso e il gusto del marmo in età bizantina attraverso le descrizioni e le rappresentazioni antiche,” in Dolci, E., ed., *Il marmo nella civiltà romana: la produzione e il commercio*, (Carrara 1989), 163–83, especially note 32.

⁵⁷ Melucco Vaccaro, Alessandria, “Agere de arte, agere per artem: la trasmissione dei saperi tecnici fra tradizione colta e fonti materiche,” *Morfologie sociali e culturali in Europa fra tarda antichità e alto Medioevo*, (Spoleto 1998), 343–77; see 363f.

⁵⁸ Heyd, *Commerce*, 276.

visited the quarries.⁵⁹ And when he went to Proconnesus in 1444/5 he reported “marmorigenam insulam venimus, et ingentia marmora incisa et nostra ipsa ad littora imminentia vidimus.”⁶⁰ Although the phrasing does not make crystal-clear that material was actually being quarried, it suggests that this is the case, and the blocks “ad littora imminentia” would have been convenient for trans-shipment. Perhaps we may tentatively say that Proconnesus was working again a century before the Ottomans conquered Constantinople, and used some fresh-cut material for their great mosques (Texier found lime-kilns at work there in the 1830s).⁶¹ Nevertheless, scholars cannot agree that the Suleymaniye was built with quarried marble, Vatin believing not, Rogers the contrary, with extraction documented only from 1570.⁶² For Bacqué-Grammont, the ottomans simply did not have enough marble from ruins in Istanbul to avoid spoliation all over the Eastern Mediterranean, let alone opening quarries.⁶³ Further east, the Seljuks erected extravagantly marbled buildings at Divrigi and Sivas (all c.1271). Gok Medrese at Sivas certainly includes earlier shafts and capitals in its courtyard, but there is so much marble on the various façades in the two cities that we should surely assume that the blocks were fresh-quarried at Sivas and then carted to Divrigi, 165km to the south west.

In lands Islam reached earlier, however, there is sufficient evidence that some marble quarries were indeed in use in the Middle Ages. And when many more cubic metres of stone building were erected than in the West, this in itself gives some meaning (other than simple make-and-mend) to re-use in an age when documents are conspicuously lacking. Some of the evidence is in narrative accounts, and some in suites of marble objects, or objects of such great size that their deriva-

⁵⁹ Cyriacus: *Later travels*, Diary III, 167–73.

⁶⁰ Bodnar, Edward W., & Mitchell, Charles, eds., “Cyriacus of Ancona’s journeys in the Propontis and the Northern Aegean, 1444–1445,” *Memoirs of the American Philological Society* 112, 1976, 34.

⁶¹ Texier, *Asie Mineure*, 161, as well as *une montagne très-haute et très-escarpée, toute couverte de blocs de marbre éboulés*; visited in 1835.

⁶² Vatin, Nicolas, “Notes sur l’exploitation du marbre et l’île de Marmara Adasi (Proconnessè) à l’époque ottomane,” *Turcica. Revue des études turques. Peuples, langues, cultures, états* 32 2000, 307–362; see 362.

⁶³ Bacqué-Grammont, Jean-Louis, “Remarques sur l’exploitation du marbre à l’époque ottomane,” in Temimi, A., ed., *Mélanges Professeur Robert Mantran*, (Zaghouan 1988), 31–34; see 32–3 plenty of documents make clear exploitation of quarries under the Ottomans—at least six around and almost on the shores of the Sea of Marmara; plus Proconnesus, Kapidagi (Cyzicus), Tekirdag—all being used by end of 16thC.

tion from antique blocks seems unlikely. This is the case with many of the capitals in the later expansions at Córdoba, and its large marble window screens. Again, the Roman bridge at Córdoba was repaired in 971, “cuyos materiales consistían en ramaje de jara traído de la sierra de Córdoba, encuadrado por grandes piedras y arena mezclada con arcilla pura...y enormes y durismos bloques de piedra traídos directamente de la cantera.”⁶⁴

And if Córdoba used a mix of old and fresh-quarried blocks, then perhaps Western structures did likewise. Burckhart reports that he was told in Mecca that many of the marble columns had been quarried locally, but does not say when.⁶⁵ Outside the Mediterranean area (but tangentially relevant because a 9th-century account says Iraq imported marble workers from China) is Afghanistan, where the Ghaznids used marble quarried c.5km distant for the carved tombstone of Sultan Mahmud (998–1030), and then extensively in the Palace of Mas’ud III (1099–1115) at Ghazni (their capital 977–1186). The palace has been excavated by IsMEO (Istituto Italiano per il Medio ed Estremo Oriente, under the direction of G. Tucci), and elements are displayed in the Museo Nazionale d’Arte Orientale in Rome. An estimated 510 carved marble panels, each 70cm high and bordered by inscriptions, were used as dadoes in the court and in the throne room. The prayer room had elaborate marble bases for columns, a decorative mihrab, marble transennae, and some of the cornices were of carved alabaster.⁶⁶

In Syria, so much marble veneer was used that it is very unlikely it was all old (although it could have been fresh-sawn from old blocks). At Mshatta, rooms near the basilical hall were intended to have a marble panelling, for a great block of a fine green stone (looking like marble, but really a calc-schist), already part-sawn into slabs 3cm thick, was once to be seen lying in the east side tract. Here, they were obviously sawing panelling on-site. Further east, Al-Tabari states⁶⁷ that while the marble for Ziyad’s 670 rebuilding of the mosque at Al-Kufah (Iraq) came from Christian churches, Ziyad also stipulated stone blocks

⁶⁴ García Gomez, Emilio, *Anales palatinos del califa de Córdoba al-Hakam II, por Isa Ibn Ahmad al-Razi (971–5)*, rev ed., (Madrid 1967), 77.

⁶⁵ Burckhardt, John L., *Travels in Arabia*, (London 1829), 56: from the Djebel Shemeysa.

⁶⁶ Dupree, Nancy Hatch, *An historical guide to Afghanistan*, on paper rev.ed. 1977, on the web at <http://www.zharov.com/dupree/chapter09.html>, with a plan and an account.

⁶⁷ Al-Tabari XIII, 69.

quarried at Ahwaz, in Persia, nearly 500km distant as the crow flies, but accessible via the Euphrates and Basra. Al-Muqaddasi (born 945/6) mentions sandstone in Syria, and then notes that “In Palestine are quarries of white stone, and a quarry of marble is at Bayt Jibril.”⁶⁸ This was presumably open in his day but, given its location, it was probably (polishable) limestone that was extracted, although Palestine does export “marble” today. Given the richness of the area of Roman remains,⁶⁹ there is always the possibility that by “quarries” sites rich in useable antiquities were intended. And since there are abundant marble and polishable limestone deposits in Syria,⁷⁰ it would be interesting to know how many were quarried during our period. The yellowish (lime)stone at Bo’adin, near Aleppo, was used by Nur Al-Din for the rebuild of the Great Mosque after the fire of 1169, as well as for the Utruch Mosque in 1399,⁷¹ and the Madrasa Al-Firdaws (1235–41) also used yellow shafts, as well as material from elsewhere.⁷²

We might reasonably expect quarrying to depend on an extension of material prosperity, and this is the case with Syria. Al-Ya’qubi says that when Al-Mu’tasim wished to build Samarra, he not only commanded the governors of the provinces to send workmen, but also ordered quarries to be opened—the ones at Lattakia were still operating in the 14th century, and producing white and green marble.⁷³ This is perhaps confirmed by Al-Ya’qubi’s account of Al-Mu’tasim’s import of skilled workmen to Iraq. He sought “specialists in the cutting and installation of marble, and established in Lattakia and other towns workshops for working marble.”⁷⁴ Here blocks would be cut roughly to shape (as quarries had always done), so reducing the transport problems across the

⁶⁸ Al-Muqaddasi, *Best divisions*, 154.

⁶⁹ Kuhnen, Hans-Peter, *Palaestina in griechisch-römischer Zeit*, (Munich 1990): 132–254 for building under the Empire; 319–46 for late antique building.

⁷⁰ <http://www.worldstonex.com/en/InfoItem.asp?ICat=2&ArticleID=112>: “Syria today is a big producer of polishable limestones, semi-crystalline marbles and, very sporadically, a black granite. It has abundant deposits of limestone, polishable and non, and of marble in the strict sense, while granite is scarce, except in two areas, one near the cities of Afrin and Aazaz and the other close to the northern coast.”

⁷¹ Sauvaget, J., *Les perles choisies d’Ibn Ach-Chihna. Matière pour servir à l’histoire de la ville d’Alep*, (Beirut 1933), 58. Presumably the famous Qasr Al-Ablaq, where yellow figured prominently, also used the same stone.

⁷² Terry Allen, *Ayyubid Architecture*, <http://sonic.net/~tallen/palmtree/ayyarch/ch8.htm>.

⁷³ And today: cf. <http://www.geology-syr.org/eservices.htm>.

⁷⁴ Wiet, Gaston, ed., *Ya’kubi: les Pays*, (Cairo 1937), 49. The specialists “pour la taille... du marbre” are surely quarrymen.

mountains and desert to the Euphrates from the Syrian coast. Given that Herzfeld reported a pier in the Great Mosque at Samarra with a Greek stonemason's symbol, and signatures on both a column and other pieces of marble, this tradition could well be accurate—for Al-Ya'qubi (d.897?) is writing about a city founded in 836.⁷⁵

Al-Mutawakkil's palaces at Samarra (which covered at least 27% of this immense area—an area which only Herzfeld's overlapping aerial photos can capture) usually had stucco dadoes, except in the Throne-Room group where they were of marble slabs. Al-Burj was described by Al-Shabushti: "a great birka whose surfacing outside and inside was plates of silver... The walls of the palace were covered inside and outside with mosaic and gilded marble."⁷⁶ This might have looked something like the luxuriant 5th-century marble dadoes at Antioch, fragments of which survive,⁷⁷ so that it is possible to view the use of stucco at Samarra as a translation from marble into another medium. Semi-precious stones and mosaic were also used, and excavated fragments are displayed in London and Istanbul. Al-Maqrīsi, who has a particular interest in building materials,⁷⁸ also refers to the (same?) quarry at Bayt Jibril near Ramla, visited by Nasir-i Khusraw in 1047, but he seems to have visited the town, not the quarry. Not only was marble quarried, it was exported from Lattakia and Bayt Jibrim to both Iraq and Egypt.⁷⁹ This is not proof that the enormous supplies

⁷⁵ Herzfeld, Ernst, *Die Ausgrabungen von Samarra, VI: Geschichte der Stadt Samarra*, (Hamburg 1948), plates XXVIII, XXIX & XXX for signatures; *Al-'Amid, Tahir Muzzafar, *The 'Abbasid architecture of Samarra in the reign of both al-Mu'tasim and al-Mutawakkil*, (Baghdad 1973), 173.

⁷⁶ Northedge, *The historical topography of Samarra*, 239. Cf. Milwright, Marcus, "Fixtures and fittings: the role of decoration in Abbasid palace design," in Robinson, Chase F., ed., *A medieval city reconsidered. An interdisciplinary approach to Samarra*, (Oxford 2001), 79–109, on the mechanics, cost and extent of building: he believes stone came from Egypt, down the Nile and then to the Syrian coast—as well as from Lattakiya. Northedge, Alastair, "The palaces of the Abbasids at Samarra," in *ibid.*, 29–67, cites over 42 buildings.

⁷⁷ Allen, Terry, *Five essays on Islamic art*, (Manchester MI 1988), 11ff. & fig. 30.

⁷⁸ Jarrar, Sabri, "Al-Maqrīsi's reinvention of Egyptian historiography through architectural history," in Behrens-Abouseif, Doris, ed., *The Cairo heritage: essays in honor of Laila Ali Ibrahim*, (Cairo 2000), 31–53; see 37–8: e.g. at Cairo, large numbers of marble slabs for Mosque of Ulmas, from Syria, Byzantium and other places (Khitat 2:307), also details demolitions so as to reuse materials, e.g. smaller pyramids at Gizeh for Saladin's Citadel (K 2:203), and transfer of columns of the mosque of Rashida to that of al-Maridani while latter under construction 1337–8 (K 2:308).

⁷⁹ Yusuf, Muhsin D., *Economic survey of Syria during the tenth and eleventh centuries*, (Berlin 1985), 57, 129–30.

of marble in Alexandria⁸⁰ did not suffice for Cairo, but perhaps some indication that this might have been the case. Much earlier, and instead of bringing the Palmyra quarries back into use,⁸¹ Qasr Al-Hayr West and East both used the same limestone, though where it came from is unknown.⁸²

Terry Allen suggests⁸³ for Syria what is a half-way-house between fully-open quarries and re-use. Namely that, in view of the accumulated Roman stocks, quarrying was done only when the size of the job warranted it—and he has no trouble believing quarries around Damascus were permanently open. He observes that, after the 1170s, masonry courses get more regular, varying by c.1220 by only about 10%, and interprets the change as signifying that earlier buildings used whatever came from the quarry, whereas for later ones continuous quarry production meant stockpiling and hence greater regularity (a similar argument will be advanced for Lucca). By the 12th century, then, given the extent and the increased size of new construction, the notion of building simply with antiquities could not be entertained (or even of brick over courses of old marble, as in the citadel at Ankara). Not only were stocks of antiquities decreasing, but the result would now have been aesthetically unsatisfactory. Yet further east, “stone quarry worker” is a known occupation in 11th-century Baghdad, as is “cutter of marble” (which could of course refer to cutting antiquities) in Iraq, Syria and Egypt in the 9th–11th centuries.⁸⁴ This accords with the evidence of re-use as well as active quarries for Anjar, near Baalbek (Lebanon).⁸⁵ Here quarry inscriptions have been found, dated early 8th

⁸⁰ Al-Muqaddasi, *Best divisions*, 166 calls Alexandria “a source of marble.”

⁸¹ Schlumberger, Daniel, *Qasr el-Heir el Gharbi*, (Paris 1986), 16 note 131.

⁸² Dussaud, René, *Topographie historique de la Syrie antique et médiévale*, (Paris 1927), 259 believes Rusafa (65km distant) is unlikely.

⁸³ *Ayyubid Architecture*, chap 7; on the web at <http://sonic.net/~tallen/palmtree/ayyarch/index.htm>.

⁸⁴ Shatzmiller, Maya, *Labour in the Medieval Islamic World*, (Leiden 1994), 104–105, and 209ff. for the construction industry.

⁸⁵ Chehab, Maurice, “The Umayyad Palace at ‘Anjar,” *Ars Orientalis* V 1963, 17–27; Chehab, Hafez K., “On the identification of Anjar (‘Ayn Al-Jarr) as an Umayyad foundation,” *Muqarnas* X, 1993, pp. 42–8. p. 43: there are identical columns in the palace and the mosque, and these are apparently in re-use; Hillenbrand, R.W., “Anjar and early Islamic Urbanism” in Brogiolo, G.P., & Ward-Perkins, B., eds., *The Idea and the Ideal of the Town between Late Antiquity and the Early Middle Ages* (Leiden 1999), 59–98. Cf. <http://www.mousaler.com/anjar/ruins/>.

century—but the site also uses older limestone columns and capitals, perhaps from some Christian church.⁸⁶

Much is still to be learned about Roman quarrying in Spain, although it is known that huge quantities of building stone and marble decoration were produced, imported and exported.⁸⁷ Islamic Spain seems to have continued production, import and export, if not on the same scale. The Moslems quarried white marble in the Sierra Morena, Sierra Nevada, the Alpujarras and near to Almería,⁸⁸ although details and dates are scarce.⁸⁹ Firrish, in the province of Seville, as well as mining iron, had “a quarry of highly esteemed pure white marble” by at least 844,⁹⁰ which was still known (and hence in use?) in 1340.⁹¹ The Sierra de Córdoba was also quarried.⁹² Not too far distant, the Cabra quarries produced material for Visigothic and Islamic Córdoba, and for Madinat Al-Zahra as well, convincing some scholars that their operation was continuous.⁹³ Ntra Sra de la Asuncion y Angeles at Cabra has a suite of 42 Cabra marble columns, but whether they came from the antecedent mosque on the site is unknown, although they are described

⁸⁶ Chehab, Hafez K., “On the identification of Anjar (Ayn al-Jarr) as an Umayyad foundation,” *Muqarnas* 10 1993, pp. 42–8; see 43 & 44.

⁸⁷ Keay, S.J., *Roman Spain*, (London 1988), 112–13. Cunchillos, Miguel Cisneros, *Mármoles hispanos: su empleo en la España romana*, (Saragossa 1988), passim, and fig. 5 for a map of known Roman quarries.

⁸⁸ Watwat (d.1313) writes of nearby Bakares “dont le canton renferme la montagne de marbre coloré;” cf. Fagnan, Edmond, ed., *Extraits inédits relatifs au Maghreb (géographie et histoire)*, (Algiers 1924), 60.

⁸⁹ Arié, Rachel, “La vie économique de l’Espagne musulmane,” *Wirtschaftsgeschichte des Vorderen Orients in islamischer Zeit*, I, (Leiden 1977), 239–54; see 249. So whether the marble in the palace at Almería was fresh-quarried or old is unknown: cf. Rubiera Mata, *Arquitectura en la literatura árabe*, 137–8 for Al-Udri’s description of Al-Mu’tasim’s palace: “el salon esta enlosado con mármol blanco tanto su parte de detras como su terrazza... [and to the south] un salon con gradas en capas descendentes adornadas de oro fino y enlosado con mármol blanco.”

⁹⁰ Huici-Miranda, A., in *El Firrish. Al-Himyari* 171 notes it in the 15th century.

⁹¹ Le Strange, G., *The geographical part of the Nuzhat-al-Qulub*, composed by Mustawfi in 1340, (Cambridge 1919), chap 23.

⁹² Nieto Cumplido, Manuel, *Historia de Córdoba. 2, Islam y cristianismo*, (Córdoba 1984), 98 from the cantera of las Cuevas de Artázar: “Canteras de mármol azulado, aprovechadas para las columnas de la Mezquita en las ampilaciones de al-Hakam II y Almanzor; se localizan en la Sierra cordobesa, y otras de mármol rosa con el mismo fin en las sierras de Cabra y Carcabuey.”

⁹³ Arjona Castro, Antonio, & Arjona Padillo, Natividad, *Cabra, capital del sur de Córdoba en Al-Andalus*, (Cabra 1998), 122–3; 130–4, and 197–8 maps 3 & 4 for the roads, and usage of the marble. Golvin, Lucien, *Essai sur l’architecture religieuse musulmane. 4, L’Art hispano-musulman*, (Paris 1979), 120, instancing the red shafts he believes to be from Cabra and, like many others in the mosque’s first state, used in the previous church.

in 1668 as *hermosas arcos sobre 42 columnas de diversos jaspes, obra antigua*.⁹⁴ Certainly, the area has plenty of Roman remains.⁹⁵ The network of Roman roads would have helped transport—one going from Córdoba via Cabra to Málaga, where earlier marble from the Sierra de Mijas were used in the Alcazaba (dated 1057–63),⁹⁶ as well as in a church tower in the vicinity.⁹⁷

Imamuddin assumes that quarries were indeed open in Islamic Spain, and columns imported from Greece and Italy. He gives an overview of other industry from flour-mills to textiles, noting the “abundant supply of raw materials and the great demand for necessities and luxury goods.”⁹⁸ Abd Ar-Rahman III supposedly ordered the quarrying of white Macael marble in 936, and this was used for columns and capitals as well as for paving, and was also exported, especially for tombstones.⁹⁹ He must have admired the stone, for the quarry is over 200km from Córdoba, much further than the quarries of the Sierra Elvira, which are also to the south east, but only about 120km from the city. Indeed, marble from El-Andaluz was traded abroad, Al-Makkari noting its quality and “the admiration it inspired in the Near East.”¹⁰⁰ This surely means that people could easily order just what they needed, and give the builders an easier life than always juggling and re-fitting antiquities. It is related via Al-Makkari¹⁰¹ that Al-Nasir Al-Hakam was quarrying marble in Spain for Madinat Al-Zahra from the 930s, where the

⁹⁴ Juárez, Dionisio Ortiz, et al., *Catálogo artístico y monumental de la provincia de Córdoba*, (Córdoba 1983), 47–55.

⁹⁵ Albornoz y Portocarrero, Nicolás, *Historia de la ciudad de Cabra*, (Madrid 1909), 277ff. for two foundation stelai for San Juan Bautista (650 AD) which look like cleaned and reinscribed Roman altars; cand 271–7 for the Cabra marble columns.

⁹⁶ Torres Balbás, Leopoldo, *La Alcazaba y la catedral de Málaga*, (Madrid 1960): 23–4, 36–7 for various cannellated column-stumps, decoratively arranged.

⁹⁷ Loza Azuaga, María Luisa, & Beltrán Fortes, José, *La explotación del mármol blanco de la sierra de Mijas en época romana: estudio de los materiales arquitectónicos, escultóricos y epigráficos*, (Bellaterra 1990), cats 6–10; plates 22 & 24 for two Roman altars in the tower of the church at Cártama, since at least the 15thC.

⁹⁸ Imamuddin, S.M., *Muslim Spain—711–1492 AD: A Sociological Study*, (Leiden 1981), 105, 106, 134; he uses standard authorities such as Yaqut and Makkari.

⁹⁹ Perrier R., “Les roches ornementales d’Espagne,” *Mines et Carrières*, 74, Aug-Sept 1992, 147–158, and online at <http://perso.orange.fr/roches-ornementales/Espagne.html>. Cf also Bosch-Vilá, J., in *El Almería*.

¹⁰⁰ Constable, Olivia Remie, *Trade and traders in Muslim Spain: the commercial realignment of the Iberian Peninsula, 900–1500*, (Cambridge 1996), 188.

¹⁰¹ Al-Makkari, *History*, I, 234–5.

mosque had alternating shafts of pink puddingstone and grey marble.¹⁰² Al-Makkari's source even notes that the costs of quarrying (at Al-Manastir, "at the foot of the mountain of Córdoba") nearly equal those of re-use—no wonder, given transport costs. The author records the shifting of two immense blocks of stone for fountains from the quarry to Córdoba: these were hollowed out at the quarry to lighten them, and then each placed on a sledge of oak trunks bound with iron, and pulled by 70 beasts. The road was levelled, and the blocks took twelve days to reach Córdoba.¹⁰³ Other stones at Madinat were white marble from Macael (Almería), streaked marble from Málaga, and pink marble from Cabra.¹⁰⁴ Blue-grey marble from Penatejad, from a quarry north of Córdoba, has been exploited since Roman times, as have Macael and Cabra, with extraction still continuing—by Marmoles Cabra S.A., for example. In the Mozarabic world antiquities were used alongside fresh-quarried material, which might suggest a scarcity of suitable antiquities locally¹⁰⁵—and Spain is a large and mountainous country across which to search for or drag antique blocks.

Even when antiquities were used, suites of consonant material required quarrying. Terrasse suggested in 1969 that marble was quarried at Córdoba when old material ran out,¹⁰⁶ but this does not fit all the circumstances. For example, the Mezquita has 19 surviving large, original pierced-marble windows,¹⁰⁷ and it would seem likely that such quantities could not have been found as old panels. Indeed, the fashion for such windows extended to Madinat Al-Zahra and other Córdoba palaces, arguably from the same workshop as the ones for the

¹⁰² Pavón Maldonado, Basilio, *Memoria de la excavación de la mezquita de Medinat al-Zahra*, (Madrid 1966), 29, with capitals in "piedra caliza, casi marmorea," and "mármol morado" for the patio paving.

¹⁰³ Al-Makkari, *History*, I, 226–7: "caused to be hewn out of the solid rock at the foot of the mountains of Córdoba at an enormous expense, owing to the number of workmen employed in them, and the difficulty of transport."

¹⁰⁴ Ruggles, D. Fairchild, *Gardens, landscape, and vision in the palaces of Islamic Spain*, (University Park, PA 2000), 60ff.

¹⁰⁵ Noack-Haley, Sabine, *Mozarabische Baudekor I: die Kapitelle*, (Mainz 1991), 172–81 for re-used capitals: e.g. excellent marble capitals from San Cebrián de Mazote (built 915/16: 14 mozarabic and 18 old capitals), San Miguel de Escalada (built 913: 14 Mozarabic and 5 old capitals).

¹⁰⁶ Terrasse, Henri, "Dispositions générales des mosquées espagnoles," *Al-Andalus*, 34:1 (1969) pp. 183–7; see 185: "Lorsqu'on manqua de colonnes de remploi seuls les grands travaux dynastiques, comme la mosquée de Cordoue et Madinat al-Zahra, purent s'offrir le luxe de faire tailler des colonnes."

¹⁰⁷ Brisch, Klaus, *Die Fenstergitter und verwandte Ornamente der Hauptmoschee von Córdoba: eine untersuchung zur spanisch-islamischen Ornamentik* (Berlin 1966), 4.

Mezquita.¹⁰⁸ Ecker agrees the quarries were opened by the 10th century, and that this freed up the design projects of the Umayyad caliphs, who could order matching elements rather than relying exclusively on antiquities.¹⁰⁹ Again, there are ablution basins surely too large to have been made from existing blocks. Across the Straits, the marble basin from the Madrasa Ben Youssef in Marrakech, at 71 × 155 × 84cm the largest surviving from the Caliphal period, 1002–1007, might make us think of the Córdoba fountains, and hence raise the suspicion that the Marrakech piece was fresh-quarried as well, aping Córdoba as a model.¹¹⁰ Given that the Madrasa was rich in marble, this is at least a possibility.¹¹¹ Another large 11th-century marble basin, decorated with lions and gazelles, survives in the Museo de Arte Hispano-Musulman in Granada. A third went to Fez from Almería in the mid-14th century by river and then on a wooden-wheeled cart, pulled by men, though whether it was quarried centuries before is unclear.¹¹²

Quarrying does not mean that re-use was spurned. Indeed, Madinat was lavished with antiquities from Rome and France as well as from North Africa, arguably because the Caliphate was seeking to evoke the monumentality of ancient Rome.¹¹³ However, if such old items were especially prized, this is not in itself evidence of quarrying shortages or difficulties. In the 13th century, Al-Dimashqi reports¹¹⁴ that the district

¹⁰⁸ Dodds, Jerrilynn D., ed., *Al-Andalus: the art of Islamic Spain*, (New York 1992), cat. 42.

¹⁰⁹ Ecker, Heather, *Caliphs and kings: the art and influence of Islamic Spain*, (Washington, D.C. 2004), 118–19.

¹¹⁰ Dodds, *Al-Andalus*, cat. 43. Much later the struggling al-Murtada (caliph 1248–66) seems to have used marble to enhance prestige: from Marrakech “Escribió a su hijo desde Azammur, cuando llego a ella, después de la derrota de Banu Bahlul, derrotado y deshecho, mandándole que le hiciese un lavabo en el bano de al-Majalis y que renovase la construcción del baño, quitándole el mármol por el resbaladero que había en el y que se esforzase en que estuviese terminado para que lo encontrarse arreglado, cuando pernoctase en al-Majalis.” Cf Huici Miranda, Ambrosio, *Colección de crónicas árabes de la reconquista, III, Ibn Idari Al-Marrakusi: Los Almohades, II*, (Tetuán 1954), 243.

¹¹¹ Viguera, María J., ed., *Ibn Marzuq, El Musnad: hechos memorables de Abd al-Hasan, sultán de los Benimerines*, (Madrid 1977), 336: “Todas tienen una construcción magnífica y decoraciones extraordinarias, numerosas obras de arte y elegante construcción, decoraciones grabadas, revestimiento de estuco y pavimentos con dibujos diferentes de extraordinarios azulejos, mármoles policromos, maderas talladas con gran maestría y agua en abundancia.”

¹¹² Hamet, Ismael, trans, Ahmed Ben Khaled En-Naciri Es-Slaoui, *Histoire du Maroc*, IV, (Paris 1934), IV, 285–6.

¹¹³ Pavón Maldonado, Basilio, “Influjos occidentales en el arte del Califato de Córdoba,” *Al-Andalus*, 33:1 (1968), 205–20; see 206.

¹¹⁴ Al-Dimashqi, *Manuel*, 345, 347.

of Al-Fah'c (near Seville, Spain) had mines for quicksilver, iron, and also a quarry for white marble, while Bekkarish (eastern Andalucía) had a quarry for coloured marble. So was it perhaps Visigothic Spain that gave the Moslems a taste for marble quarrying? Marble pillars do survive from the late 6th or 7th century sufficiently large (at over two metres) to suggest they could have been fresh-quarried for a late 6th-century church¹¹⁵ before being re-used.¹¹⁶

To the south, in Morocco, the Hassan Mosque at Rabat (begun 1191) has dressed-stone column drums which are of a variety of heights. While monoliths of differing heights in the same building are generally a sign that they are re-used, at Rabat the stone for such a huge project must have been fresh-quarried. The varied drum-heights suggest that the stone came from several quarries (which could of course be close together), each with usable stone-beds of different thicknesses, which was the case, for example, with quarries in Istria.¹¹⁷ This did not of course matter, since the finished shafts would have been stuccoed. Ewert explains both the megalomania and the rush of the (never finished) mosque's construction as a direct emulation of Córdoba by Abu Yusuf Ya'qub (who after his victory at Alarcos in 1195 took the name of "Al-Mansur"). "In the fortress of conquest (Ribat Al-Fath shortened to Rabat), [he] was conjuring up before the eyes of the troops he had assembled for the holy war the image of the chief sanctuary of Islamic Spain, the land so sorely pressed by the Christian advance."¹¹⁸ Marble fragments have also been excavated at the mosque, so it is possible that wall veneers decorated parts of the structure, just as some marble columns were used to decorate the minaret—once again conceivably in imitation of Córdoba.¹¹⁹ Rabat's prestige continued to mount, even if the mosque was never completed; and about 1310 Rabat became commercially prosperous, and then "people began to use glazed tiles, marble and sculptures in their buildings."¹²⁰

¹¹⁵ Collins, Roger, *Spain: an Oxford archaeological guide*, (Oxford 1998), 194.

¹¹⁶ Schlunk, Helmut, & Hauschild, Theodor, *Die Denkmäler der frühchristlichen und westgotischen Zeit*, (Mainz 1978), 189 & Taf 86: four-sided marble pillars in the Museo Arqueológico Mérida, reused at the Alcazaba in Mérida for the entrance to the cistern.

¹¹⁷ Connell, *Sculptors and stonemasons*, 94.

¹¹⁸ Ewert, Christian, "The architectural heritage of Islamic Spain in North Africa," in Dodds, *Al-Andalus*, 85–95; see 95.

¹¹⁹ Caille, J., *La mosquée de Hassan à Rabat*, (Paris 1954), 103–9, 117.

¹²⁰ Beaumier, A., ed., *Roudh el-Kartas, Histoire des souverains du Maghreb et annales de la ville de Fès*, (Paris 1860), 557.

Some of the ancient quarries in Egypt were well known by the 10th century, when the country was becoming increasingly interested in marble and granite. But knowledge does not necessarily entail use. Excavators have found no sign of Islamic extraction at either Mons Porphyrites or Mons Claudianus—although the latter is known in Arabic as Umm Dikal, namely ‘Mother of Columns,’ and there are still plenty of blocks and columns around, in various states of completion or fracture.¹²¹ But what about Aswan, conveniently near the Nile? Mas’udi (d.956) asked an old man near the Pyramids whether there were any marble quarries in Egypt. His reply (with the common confusion between marble and granite) suggests a good knowledge of quarries no longer in use, at least of those very close to the Nile. He replied that the stones were polished with sand (could he mean emery, found in Nubia?), and described the enormous monolith at Aswan (it is still there) not completely detached from the bed.¹²² So how late can we assume that they were still pulling materials out of Aswan (rather than Mons Claudianus)? Did the old man go to the quarries in the 10th century simply for sight-seeing in the already-venerable Mirabilia tradition, or to extract materials? May we trust Mas’udi? Yes, if we go by the accurate details he gives for the contents of a Pharaonic tomb in AD 939.¹²³ Makrizi knew about the Aswan quarries, as obviously did his contemporaries—and correctly identifies it as the source of “Pompey’s Pillar” in Alexandria.¹²⁴ It has also been suggested that in Islamic times basalt outcrops near Cairo were quarried, plus Mokattam limestone and astracane dorato in large quantities.¹²⁵ The fact that Aswan granite and granodiorite were both used in large quantities in Cairo buildings (such as for the cladding of Menkare’s pyramid at Giza)

¹²¹ Peacock, David P.S., & Maxfield, Valerie A., *Survey and excavation: Mons Claudianus 1987–93, I: Topography and Quarries* (Cairo 1997), 201–16 for stone artefacts, and 212–14 for columns, including two 60-footers.

¹²² Mas’udi II, para. 794.

¹²³ Ibid., paras 825–6.

¹²⁴ Bouriant, U., ed., *Magrizi, Description topographique et historique de l’Égypte*, (Paris 1895), Part I, 573: “d’où les anciens tiraient des colonnes et d’autres pièces d’architecture; quant aux colonnes, bases et chapiteaux que les Égyptiens nomment ‘Assouanites,’ et dont on fait des meules de moulin, les anciens les ont taillées des centaines d’années avant l’apparition du Christianisme; de ces colonnes faisait partie la colonne d’Alexandrie.” One 13thC author describes the monolith, but says it was to be a bridge to provide a crossing for the Nile: Evetts, *Churches and monasteries of Egypt*, 277, and built by “the giants.”

¹²⁵ Harrell, *Ornamental stones*, items E15, E17, E18.

suggests that the Aswan quarries might have been worked to feed the need,¹²⁶ although spoliating the cladding of the Third Pyramid would have provided plentiful thick if irregular slabs. Another near-certainty is the use of stockpiles at the Aswan quarries. Thus Al-Harawi (d.1215) visited them: "I myself ascertained the existence of ancient quarries, with blocks of granite and columns already cut." And he measured the obelisk in its bed at about 25m visible, and over 3m each side.¹²⁷

To conclude this overview, it seems likely that the more attention is turned to the question of mediaeval quarrying, the more examples (usually of limestone, not marble) will be found. This is already established in England, for Barnack from the ninth century,¹²⁸ with plentiful quarrying by the 11th century.¹²⁹ In Ireland, there was in Ulster a "flourishing indigenous quarrying industry in the Anglo-Norman era"; and in SE Ireland, "imported stone played an important part in the dressing of many Anglo-Norman buildings"¹³⁰—so perhaps evidence of earlier quarrying will emerge elsewhere in Western Europe.

Antique stockpiles of classical marbles

With Rome's command economy in the first century, quarrying was controlled centrally, and enormous stocks of materials, many part-finished to save weight in transport, many in standardised dimensions, accumulated at the quarries awaiting shipment when possible.¹³¹ If we think of marble shipwrecks as stockpiles *in posse*, then the sizes of the blocks fed to the stockpiles makes it clear that not everything

¹²⁶ Ibid., E11, E12.

¹²⁷ Al-Harawi, *Guide*, 106.

¹²⁸ Darvill, Timothy, Timby, Jane R., & Stamper, Paul, *England: An Oxford Archaeological guide to sites from earliest times to AD 1600*, (Oxford 2002), 218.

¹²⁹ Blair, John, et al., eds., *The Blackwell Encyclopedia of Anglo-Saxon England*, London 2000, 315–17 for quarrying, and 396–8 for re-use.

¹³⁰ Barry, Terence B., *The archaeology of medieval Ireland*, (London 1987), 113.

¹³¹ Ward-Perkins, J.B., "Quarrying in Antiquity. technology, tradition and social change," *Proceedings of the British Academy*, 57 1971 [1973], 137–58. Pensabene, Patrizio, "Il fenomeno del marmo nel mondo romano," in *De Nuccio, Marilda, & Ungaro, Lucrezia, eds., *I marmi colorate della Roma imperiale*, Venice 2002, 3–67; see 15ff., 29ff. for ordering and stockpiling. Fant, Clayton, "Les carrières des empereurs romains," in Waelkens, Marc, ed., *Pierre éternelle: du Nil au Rhin: carrières et préfabrication*, (Brussels 1990), 93–105; and Asgari, Nusim, Objets de marbre finis, semi-finis et inachevés du Proconnèse, in *ibid.*, 106–26 for two well illustrated and richly detailed surveys. Dodge, Hazel, "Ancient marble studies: recent research," *JRA* 4 1991, 28–50: 36–8 for stockpiling, standardisation and prefabrication.

was roughed out at source. The Porto Novo wreck (Corsica, Roman, 2ndC?), for instance, has about 138 tons with several five-metre-long blocks, all Carrara *brut de carrière*, plus roughed out columns of 12/13 metres including capital.¹³² But stockwise how big is “enormous,” and from whose perspective? The bigger the building project, the bigger the stockpile? Certainly, the essential complement to quarrying marble on the quasi-industrial scale of the Romans is stockpiling it,¹³³ especially for ship-borne economies for which just-in-time production and delivery schedules had not yet been invented. (The same applies to other materials, such as roof tiles).¹³⁴ Because of the long lead-times, especially in quarrying gigantic columns, the uncertainties of shipping, and building practices, the Romans developed some huge stockpiles of which substantial quantities survive, such as at the Fossa Traiana at Fiumicino,¹³⁵ or the Marmorata underneath the Aventine. But even the rough size of the Portus/Ostia/Rome stockpiles in the Middle Ages cannot be known, not least because they were surely raided well before the Baroque period, when blocks from Portus were used for the Piazza Navona and Piazza Colonna fountains.¹³⁶ We lack information to decide whether some of the suites of columns in Rome were direct or stockpiled earlier materials. For others, problems of delivery and stockpiling affect a monument’s “biography.” If we accept Taylor’s argument for the Pantheon, for instance, then the great 54-Roman-feet (16.2m) proconnesian monoliths he suggests were ordered would not fit. Granite 40-footers (12m) were substituted, the larger “columnar order in search of a temple” found a home in the Serapeum, and then sections wandered through Rome, some gracing the Basilica of Maxentius, and

¹³² Bernard, Hélène, et al., “L’épave romaine de marbre de Porto Novo,” *JRA* 111 1998, 53–81; 7. “Clustered columns” to be finished at the destination developed into a stylistic feature in mediaeval architecture: less work for the masons, but did they pick up the idea from what they saw in classical stockpiles?

¹³³ Cf. DeLaine, *The Baths of Caracalla*, 188.

¹³⁴ Lanciani, *Wanderings*, 99: many of the roof tiles for Old S. Peter’s were “collected from various ruined edifices, or from ancient storerooms of the imperial brick-kilns. Many bore the date of AD 123 with the legend ‘tile made in the imperial kilns of the Via Salaria’”—and a few bore Constantine’s name.

¹³⁵ Maischberger, M., *Marmor in Rom. Anlieferung, Lager- und Werkplätze in der Kaiserzeit*, (Wiesbaden 1997), especially the appendices. *Pensabene, Patrizio, *Le vie del marmo. I blocchi di cava di Roma e di Ostia: il fenomeno del marmo nella Roma antica*, (Rome 1994).

¹³⁶ Fant, J. Clayton, “Rome’s marble yards,” *JRA* 14 2001, 167–98; see 169, 178; Flavio Biondo reported seeing large quantities of marble blocks near Trajan’s harbour: *Roma restaurata ed Italia illustrata*, (Venice 1558), 78ff.

then one in Piazza SM Maggiore.¹³⁷ Brandenburg, however, points out the inscription “Rufenus” on a column in S. Sabina, which proves to him that the column suite came from a stockpile, not directly from a temple; and he argues that, had such been the case, the temple’s flat entablature would have been used, instead of arcading.¹³⁸

In classical times, excessive stockpiling of marble the market could not absorb arguably caused a downturn in quarrying. Waelkens, in the best summary of the use of marble in late Antiquity,¹³⁹ has suggested the third century (the last Imperial quarry inscription is dated 236) as the beginning of the decline of quarrying and trade, triggered by “enormous stocks of (mainly coloured) marbles” in Rome. A tell-tale sign is the subsequent use of several white marbles in the same building, because coloured stock was not reaching the end-user. The Tetrarchs prompted a revival (with quarries at Simitthus and Mons Porphyrites working into the 5th century). Earlier materials were also used, which Waelkens views as a reaction to shortage. Diocletian’s Price Edict of 301 fixes some marble prices, which could indicate a reaction to inflation caused by such shortages. Constantinople, he explains, also cut down exports to Rome. Elements from Proconnesus and the Troad were still being shipped into the 5thC, but only for Imperial or near-Imperial clients¹⁴⁰—and to Byzantine outposts such as Ravenna during the 6thC. In the 10th century, as we have seen, it was the Bishop of Synnada, near the Dokimeion quarries, who was addressed for workmen who could saw blocks into veneer—from which Waelkens reasonably concludes that the quarries were still active.

No mediaeval documents seem to deal with marble-working activities in the area around Portus, but hints survive from Classis, the port of Ravenna. Agnellus (born 805) records in his local *Liber Pontificalis* that he was asked by Archbishop Pertinax to supervise the removal of a tombstone to be taken over the Alps so that the masons would

¹³⁷ Taylor, Rabun, “Hadrian’s serapeum in Rome,” *AJA* 108 2004, 223–66.

¹³⁸ Brandenburg, Hugo, *Ancient churches of Rome: from the fourth to the seventh century*, (Turnhout 2005), 169; he points out similar cases at S.M. Maggiore and S. Stefano Rotondo.

¹³⁹ In the entry *marble*, in G.W. Bowerstock et al., eds., *Late Antiquity: a guide to the postclassical world*, (Cambridge MA & London 1999), 559–62.

¹⁴⁰ Barsanti Claudia, “L’importazione di manufatti marmorei degli opifici del Proconneso nelle città del Mar Nero durante il IV–VI secolo,” *Bulgaria Pontica Medii Aevi* III 1482, 197–225.

not break it.¹⁴¹ This suggests that the trade in old marble at Classis, perhaps started much earlier than Charlemagne with his desiderata for Aachen, was continuing. In 1021 a diploma of Henry II, writing from Ravenna, mentions one “Vitalis the marble-worker,” who lived in a house at Classis owned by a cleric in Arezzo.¹⁴² Classis was evidently a most convenient domicile for his trade, of course¹⁴³—but it is impossible to know whether he earned a living cutting up blocks from classical stockpiles to be found by the port. The only document that commands the creation of stockpiles of re-usable antiquities is reprinted by Vatin, and dates from 1582 at Istanbul: “You will gather and store in the trenches of the Imperial Gardens the marble columns and the [other] marbles suitable for the buildings of my august domain...if the marble columns are to be found in a private house and thus must be extracted, you will extract them, but will repair any damage.”¹⁴⁴ Such stockpiling might have been common at Istanbul. Petrus Gyllius (in Constantinople 1544–7) reports that the Süleymaniye used “the most elegant Marble, brought from several parts of the Turkish Dominions, so that you may see infinite Kinds of it lying about the Building, not lately dug out of the Quarry, but such as for many ages has been used in the Palaces of several Princes and Emperors, not only in Byzantium, but in Greece, and all Egypt.”¹⁴⁵ Necipoglu believes that such use of precious materials taken from earlier buildings is intended to make a direct comparison between the Süleymaniye and Hagia Sophia. Given the giant columns in the interior, and the display in the courtyard, this is possible. And is this the first mosque to use porphyry and verde antico on the floor in the open air, as opposed to inside a building? Such collection into the inevitable stockpiles surely saw the discards used elsewhere, which could be why the Kilic Ali Pasha (1580–7) has such

¹⁴¹ Martínez Pizarro, Joaquín, *Writing Ravenna: the Liber pontificalis of Andreas Agnellus*, (Ann Arbor 1995), cap. 113: “et in capsam ligneam super lanam inclausit et Franciam deportavit et super altarium sancti Sebastiani, mensam ut esset, posuit. Praeceptum mihi a pontifice fuit, ut ego illuc issem, ne caementarii incaute agerent, frangeretur; sed corde dolore pleno in partem aliam secessi;” this was a “lapis pirifireticus...preciosissimus et valde lucidissimus in modum vitri.”

¹⁴² MGH Dip. Reg. Imp. Germ. 3.590.

¹⁴³ Fabbri, Paolo, “Fiumi e canali nella storia urbana di Ravenna,” *Archeologie delle Acque* 5 Jan.–June 2001 (issue dedicated to *Canali e città d’acque in Emilia Romagna*), 94–103; see 98–9; he thinks it was abandoned in the 8th century.

¹⁴⁴ Vatin, “Notes sur l’exploitation du marbre,” 356.

¹⁴⁵ Necipoglu-Kafadar, Gulru, “The Süleymaniye Complex in Istanbul: an interpretation,” *Muqarnas* 3 1985 92–117; see 102.

splendid monoliths in its portico. Earlier mosques were certainly built from materials already on-site, such as the Sultan Beyazit (1501–6, on top of Theodosius' Forum Tauri), as were later ones, such as the Sultan Ahmet (1609–16), which disposed of, and displays, large quantities of material from the Great Palace.

In the Middle Ages, then, it was perhaps not always necessary to choose between re-use and quarries because, judging by the stocks of classical marbles still surviving at locations such as Ostia, large quantities were available to the Middle Ages, especially since the area was still taking traffic (including amphorae) in Carolingian times.¹⁴⁶ There might also have been stockpiles of earlier materials, if the practices of late antique Rome were common and continuous, and we shall meet arguments in their favour in a later chapter. But to ask again an earlier question from a mediaeval perspective, how big is “enormous”? DeLaine has made a detailed and convincing quantity survey for the Baths of Caracalla, and we can say with confidence that nothing on anything like that scale was erected in mediaeval times—so that a less-than-one-year's-stockpile à la Fant could surely keep mediaeval marmorarii happy for several years, including Venetian builders.¹⁴⁷ Is the 12th-century cylindrical single-piece pulpit from Pomposa, now in the Louvre, cut from a stockpiled block, or perhaps from a column fragment? And were any elements of the pulpits by Nicola Pisano and his son among many others cut from antique blocks? We know that at least one transenna panel (in the Opera del Duomo) was carved from an earlier block, because the original design was left on the verso. But were the plentiful panels in the Baptistry at Pisa, or in the Pieve di S. Andrea or S. Giovanni Fuoricivitas in Pistoia, also antique in origin? All this is guesswork, of course, so while it is likely that mediaeval marble-scavengers came across classical stockpiles, we can never be certain because of a lack or obscurity of documentation. For example, when Procopius writes (VI.6–19) of the miraculous discovery of marble near Jerusalem, this could be some stockpile of Constantinian material, or even a newly-discovered quarry. We should bear in mind large building

¹⁴⁶ Coccia, Stefano, “Il ‘Portus Romae’ fra tarda antichità ed altomedioevo,” in Paroli L., & Delogu P., eds., *La storia economica di Roma nell'alto Medioevo alla luce dei recenti scavi archeologici*, (Florence 1993), 177ff. notes that its walls certainly restored in 9thC under Leo IV (from LP).

¹⁴⁷ Connell, *Sculptors and stonemasons*, 111 suggests they obtained blocks from disused quarries in the East.

sites making slow progress. One such is Didyma, an enormous temple close to the sea, and which was never finished. We might therefore call the whole site a stockpile. While it would be unsafe to assume that all the columns of this temple were ever erected, it is certain that insufficient drums remain on site to populate the available bases, let alone entablature blocks and capitals,¹⁴⁸ which might have been spoliated. This suggests many smooth cylindrical drums (for they would have been cannellated once erected) have been rolled away to ships.

The matter of stockpiling antiquities is crucial for any argument advancing the intentions of re-use. For if marble went first to some central depot from a variety of buildings (which might have been the case just as much with Old S. Peter's as with the Arch of Constantine or the capitals of S. Sabina), then surely little ideological significance can be attributed to their use.¹⁴⁹ Indeed, we know that unfinished workshop pieces were employed,¹⁵⁰ reducing further the likelihood of specific meaning in such re-use. Such stockpiling might have been common, if the large amount of discards from reprocessing recently found at Aix-en-Provence is any guide.¹⁵¹ This dépôt includes decorative slabs for the marmorisation of Gallic urban and rural residences, as well as architectural elements and pieces of opus sectile—so that we might think about marble as almost infinitely recyclable until (as Ibn Khaldun writes) it disappears altogether.

As well as stockpiles at the destination, there would also be stocks of marble at the quarries, where a veritable industry of blocking out, part-finishing, and series production can be seen in various ancient

¹⁴⁸ Texier, *Asie Mineure*, 340–1: “il manque sur le terrain tout la corniche et tous les chapiteaux. Je n’image pas comment ces morceaux ont pu disparaître; ils ne sont pas enterrés; car le sol actuel est de plus de deux mètres en contre-bas du niveau des bases; et de tous les morceaux du temple, les chapiteaux sont ceux qui peuvent le moins être employés à d’autres ouvrages—but he moored his goelette at Cape Arbora, viz. Cape Posidonium, a league from the temple—so it would have been easy to get the blocks away.

¹⁴⁹ Coates-Stephens, Robert, “Attitudes to spolia in some late antique texts,” in Lavan Luke, & Bowden, William, eds., *Theory and practice in late antique archaeology*, (Leiden 2003), 341–358; see 341; 342–3: equally, he sees no need of antiquities for political legitimisation.

¹⁵⁰ Brandenburg, *Ancient churches of Rome*, 97: “obviously taken from one of the large marble magazines on the river banks.”

¹⁵¹ Digelmann, Patrick, “Le dépôt de marbre du parking Pasteur. Eléments de décoration trouvés dans un domus à Aix-en-Provence,” *Revue Archéologique du Narbonnaise* 36 2003, 231–47.

quarries.¹⁵² Some stockpiles will have long since disappeared, but many remain with very large numbers of blocks.¹⁵³ In Anatolia, such blocks were employed for housing.¹⁵⁴ Simitthus (Tunisia) still has many blocks, perhaps discards,¹⁵⁵ and these could have been taken down-river to the port of Carthage, since the river was navigable into the 18th century.¹⁵⁶ Or they could go by the road built to the port of Tabarka, a city with many ancient ruins, and where ships could dock almost at the gates.¹⁵⁷ Blocks with quarry-marks have been found in the Paros quarries (Cyclades). Cut Roman blocks are still being found at Carrara, one of which notes the source—Monte Gamiano—and who did the squaring up.¹⁵⁸ There are large quantities of discards (including roughed-out capitals) still to be found at the Saraylar quarries at Proconnesus,¹⁵⁹ and the porphyry quarries still contained in 1907 large quantities of cut blocks, roughed-out pieces, and an unfinished 6.77m column of 1.16m diameter.¹⁶⁰ Guérin saw large quantities of “carefully cut blocks,” and a roughed-out column.¹⁶¹ Even today, at Mons Claudianus “thousands of freshly cut blocks lie scattered about,” with more by the loading ramps.¹⁶² It also seems likely from a 10th-century text that the Egyptians went out searching quarries for granite, and

¹⁵² Waelkens, Marc, “Technique de carrière, préfaçonnage et ateliers dans les carrières classiques (mondes grec et romain), in Waelkens, Marc, ed., *Pierre éternelle: du Nil au Rhin: carrières et préfabrication*, (Brussels 1990), 54–72.

¹⁵³ *Dworakowska, *Quarries in Roman provinces*, 56–9 for listings from Dokimeion and Alexandria Troas to Proconnesus, Lesbos, Thasos and Cyprus.

¹⁵⁴ Burnaby, Fred, *On horseback through Asia Minor*, (London 1877), I, 171–2: “their walls were built of marble; the roofs were made of beams covered with wood... Large blocks were lying on all sides of us, and along our path.”

¹⁵⁵ Beschtaouch, Azeline, *Simitthus I: Die Steinbrüche und die antike Stadt*, (Mainz 1993), passim.

¹⁵⁶ *EI Tabarka*.

¹⁵⁷ Fagnan, *Afrique septentrionale*, 28.

¹⁵⁸ Dolci, Enrico, “Due epigrafi romane delle cave lunensi di Carrara,” *Atti e Memorie Dep. St. Patria per le antiche Provincie Modenesi* XXVII, 2005, 347–60.

¹⁵⁹ Asgari, N., “The Proconnesian production of architectural elements in late antiquity, based on evidence from the marble quarries,” in Mango, Cyril, & Dagron, Gilbert, eds., *Constantinople and its hinterland*, (Oxford 1995), 263–288; see fig. 2. 275: he believes there was no quarrying during the sixth century.

¹⁶⁰ Couyat, J., “La route de Myos-Hormos et les carriers de porphyre rouge,” *BIFAO* 7 1910, 15–33; see 22, 29.

¹⁶¹ Guérin, V., *Voyage dans l’île de Rhodes et description de cette île*, (Paris 1856), 250: at Marmaro-Vournia, near Vasilika; he guessed an ancient quarry was nearby.

¹⁶² Jackson, Robert B., *Empire’s edge: exploring Rome’s Egyptian frontier*, (New Haven 2002), 46.

limestone as well.¹⁶³ Like the marble quarries at Lesbos and Karystos,¹⁶⁴ the Roman granite quarries at Capo Testa (Sardinia) still have plenty of blocks, and Roman columns are visible through the clear water on the sea bed. It is interesting to surmise that the stocks of marble at the sea-accessible Miletus quarries (for Didyma), abandoned because of war, were accessed during our period, for pieces still remain there in various stages of completion.¹⁶⁵ Both sites were trade and war ports,¹⁶⁶ together with Izmir.¹⁶⁷ Monasteries also owned land and property at places such as Miletus-Palatia,¹⁶⁸ with sufficient ruins to make it a convenient source for marble. And in 1842, Hamilton noted that Eski KaraHisar, “which is near the celebrated quarries of Synnadic or Docimitic marble, contains numerous blocks of marble and columns, some in the rough and others beautifully worked.” At Sighajik (near Izmir: ruins of Teos) he visited the marble quarries to the east of the ancient city and found “hard brecciated limestone of a fine quality, of which several large blocks were lying in a neighboring dell: they were cut into such extraordinary shapes, representing steps, niches, pedestals, and with numerous breaks of different height and size”—and he illustrates one such block.¹⁶⁹ Here it looks as if the needed pieces were cut off, like slices from a chunk of cheese, rather than bothering to move the whole blocks. Further west, an 1191 document from Genoa contracting delivery of twelve columns and capitals¹⁷⁰ is surely of marble

¹⁶³ Daressy, Georges, “Indicateur topographique du Livre des perles enfouies,” *BIFAO* 13 1917, 175–230; cf. 214–17 for “grottoes,” many of which the author identifies as quarries.

¹⁶⁴ Pensabene, Patrizio, “Contributo allo studio delle cave di Lesbo,” in *Pensabene, Patrizio, ed., *Marmi antichi II, cave e tecnica di lavorazione, provenienze e distribuzione*, (Rome 1998), 175–206; *ibid.*, “Le colonne sbazzate di cipollino nei distretti di Myloi e di Aetos (Karystos),” in *ibid.*, 311–26.

¹⁶⁵ Peschlow-Bindokat, Anneliese, “Steinbruch und Tempel: die Cave di Cusa von Selinunt und die Marmorbrüche von Milet,” *Antike Welt* 25.2 (1994), 122–39.

¹⁶⁶ Heyd, *Commerce*, I, 544f.

¹⁶⁷ Pryor, John H., *Geography, technology, and war: studies in the maritime history of the Mediterranean, 649–1571*, (Cambridge 1988); 167: Umur Pasha c.1330 makes Izmir and Ephesus the base for his depredations; 168: Palatia/Miletus housed the fleet of the emirate of Menteshe, and Attalyathat of the Karamanids.

¹⁶⁸ Smyrlis, Kostis, *La fortune des grands monastères byzantins: fin du X^e–milieu du XIV^e siècle*, (Paris 2006), 23ff. & e.g. map at 80–1.

¹⁶⁹ Hamilton, William J., *Researches in Asia Minor, Pontus and Armenia*, (London 1842), I.461, II.17–19.

¹⁷⁰ Mannoni, Luciana & Tiziano, *Marble: the history of a culture*, (New York 1985), reprinted from Hall, M.W., Krueger, H.C., & Reynolds, R.L., *Ligurian notaries of the 12th century*, *Guglielmo Cassinese (1190–1192)*, (Genoa 1938): (1) Durante, son of Giordano of

from Carrara, and such a set is unlikely to have been old scavenged items. They could have been fresh-quarried—but equally, might they not have been cut from old stocks lying near Carrara?¹⁷¹ And if the Pisans imported stockpiled material from Elba (rather than quarrying it),¹⁷² could stockpiles be the source of Cosimo I de' Medici's vainglorious Seravezza mischio shaft for Piazza S. Marco, brought to Florence in 1572, but which broke?¹⁷³

Miletus, well known in the Middle Ages for trade, was probably also the trans-shipment point for marble from Dokimeion, in the Phrygian mountains.¹⁷⁴ Because of the church of S. John, nearby Ephesus attracted pilgrims as well as traders throughout much of the Middle Ages,¹⁷⁵ and this was the embarkation point for marbles from inland. Louis Robert might be correct in believing that Synnada marbles were indeed quarried throughout the Byzantine period (the same has been suggested for Mount Tisaion, in Thessaly).¹⁷⁶ In any case, we might suspect that both Miletus and Ephesus had classical stockpiles of material awaiting shipment, including the much-prized Dokimeion—and also, of course, that those great ancient cities encouraged mediaeval traders to make their own stockpiles, to which I now turn.

Carrara, promises to deliver a marble column to Guglielmo Fondichiere: “columnnam 1. marmoris longam palmorum .VIII1/2, et grossam palmorum .III. et sumissi .I., sanam et integram, in portu Ianue...”; (2) “Promittit Stephanus de Zartex se daturum Lanfranco Ricerio, in portu de Deva [Deiva] usque ad medium decembrum, columnnellos .XII., petre vermili de Paxano, pro sol. .III1/2 columnnellum, longos palmorum .V. et grossos sumissi .1, et capitellos .XII. pro den. .XIII. capitellum”; and a “Bonvicino marmorario” was involved in an apprenticeship document in the same year. The document is on the web at RM: http://www.storia.unive.it/_RM/didattica/fonti/frova/sez6/par5.htm.

¹⁷¹ When Vasari, in his *Life of Sansovino*, mentions a Michelangelo/Sansovino visit to Pietrasanta: “They found many blocks of marble there, but difficult to transport,” are these perhaps Roman blocks that they are scavenging? Contra the usual story, might the block from which the *David* was carved have been dragged from a quarry stockpile, but found to have a fault? It was certainly lacking in depth.

¹⁷² Discussed in *dvd_large_monolithic_columns.doc*

¹⁷³ Jervis, W.P., *The mineral resources of Central Italy*, (London 1868), 14, for Cosimo's columns, the first of which was an antique shaft from Rome. Damaged shafts are usually left at the quarries.

¹⁷⁴ Crouch, Dora P., *Geology and Settlement*, (Oxford 2003), 192.

¹⁷⁵ Kaplan, Michael, “Les saints en pèlerinage à l'époque mésobyzantine (7^e–12^e siècles),” *DOP* 56 2002, 109–27.

¹⁷⁶ Dworakowska, *Quarries in ancient Greece*, 98.

Stockpiles of classical marbles made in mediaeval centuries

Stockpiling is a logical way of dealing systematically with building requirements (dismantling buildings, like playing Chinese Towers, requires planning), as well perhaps as a bureaucratic inevitability. The larger the project, the greater the need for stockpiling. It appears to have been practiced in late Antiquity, for Hiernard suggests that wall builders had collections of usable material already stockpiled from earlier buildings. He points to blocks from the same funerary monument re-used on opposite sides of the late walls of Bordeaux, which were very rich in ancient blocks. This, he asserts, is proof of the material being in different stockpiles.¹⁷⁷ The same might have happened elsewhere in France,¹⁷⁸ and at Manisa, where similar antique capitals are found in three distinct Islamic monuments.¹⁷⁹

What about mediaeval stockpiles of classical marbles, as distinct from stockpiles formed in classical times? Later stockpiling may be in part a response to the same uncertainties of supply in the classical world, with the added difficulties that scavenging for suitable material introduced. Any large building project would have required stockpiling, and unless marble quarries were indeed producing in the 11th century we must assume that the large members required for doorframes were recut from damaged antique stock (undamaged stock was simply re-used). The only evidence we have is much later, when four shafts from the Constantinian S. Peter's were used in the Porta del Popolo (1562) when they must already have been stockpiled for some 20 years.¹⁸⁰ But presumably blocks *brut de carrière* were also available. How else to explain Bishop Elias' late-11th-century throne in S. Nicola, Bari, cut from one

¹⁷⁷ *Hiernard, Jean, "Des remplois singuliers: spolia inclus dans les enceintes tardives des Trois Gaules," in Ballet, Pascale, et al., eds., *La ville et ses déchets dans le monde romain: rebuts et recyclages*, (Montagnac 2003), 259–70; 265–6 for reuse of tombstones—very popular as building-blocks.

¹⁷⁸ Foulquier, Laura, "Dépôts lapidaires et remplois (Antiquité tardive/haut Moyen Age). Pour une nouvelle approche de la christianisation, des sanctuaires et du peuplement dans l'Auvergne du haut Moyen Age," *Journal of Medieval Studies*, online at http://www.spolia.it/online/it/argomenti/archeologia/materiale_antico/2004/foulquier_L.htm.

¹⁷⁹ Dennert, Martin, *Mittelbyzantinische Kapitelle. Studien zur Typologie und Chronologie*, (Bonn 1997): one in Ulu Camii (130, in the passage to the madrasa), three in the portico to Hatunieh Camii (128a–b–c), and one in Ivaz Pasa Camii. These had surely come from Christian monuments—perhaps used because they were known to be popular in Greece—cf. the two in the Panaghia tou Kastrou at Karytaina (cat. 132).

¹⁸⁰ Bosman, Lex, *The power of tradition. Spolia in the architecture of St. Peter's in the Vatican*, (Hiversum 2004), 122.

block, or Bishop Romuldu's throne in Canosa di Puglia? More than this, should we assume that sculptors such as Nicola Pisano also maintained their own stockpiles from which they could fulfil commissions? It is likely that the enormous quantities of antiquities used in the Islamic world (for Córdoba, Kairouan, Cairo and Tunis) required stockpiling which is reflected in various mosque expansions (or in mosques that were huge to begin with, as in Istanbul). Writing in the 12th century, Glykas says that the materials for Hagia Sophia (completed 537) took seven years to assemble,¹⁸¹ but of course the earlier church was destroyed only in 532, so the dates do not match. Nevertheless, marble must have come from all over the Empire for the great church, and the intricacies of building it must have required large stockpiles.¹⁸² Conditions in Jerusalem made it possible that marble was stockpiled for the Dome of the Rock project under Muawiya, the monument being constructed under his successor Abd Al-Malik.¹⁸³ Fewer monuments in the West meant bijou quantities used in places such as Aachen and Magdeburg—a modesty which puts the extraordinary exertions of the Pisans and Venetians into startling perspective. Given the Moslem practice of deliberately dilapidating their predecessors' structures, palaces and mosques were themselves frequently stockpiles, as were some extravagant displays of antique blocks in some fortifications in the Christian world.¹⁸⁴

Again, documentation is lacking or tangential. The discovery of a Theodosian capital by the Aventine, in proconnesian marble, together with quarried blocks, does suggest an extended life for some stockpiles.¹⁸⁵ One narrative, although it sounds too story-like to represent reality, suggests stockpiling in mediaeval Palestine when Abd Al-Malik built Ramla. He tried to buy a garden from a Christian, who had the nerve to get the Muslims to witness a waqf (viz. a gift in perpetuity) he gave it to the benefit of the church. Nevertheless, Abd Al-Malik traced out a mosque and an elegant little palace for the emir. But his advisors wanted him to build bigger, so the prince drew out a congregational

¹⁸¹ Bouras, Charalambos, "Master Craftsmen, craftsmen, and building activities in Byzantium," in Laiou, *The economic history of Byzantium*, 539–54; see 552 note 140. The seven years is a reference to the time taken to assemble material for Solomon's temple.

¹⁸² Süssheim, K., in *El Hagia Sophia*.

¹⁸³ Goitein, S.D., in *El Jerusalem*.

¹⁸⁴ Klaus Mueller, *Hellenistische Architektur auf Paros*, (Berlin 2003). For the Hellenistic material in the Kastro, cf. plates 1–4, and 82–91 for re-use in the Apsed Building.

¹⁸⁵ Pensabene, "Il fenomeno del marmo," 31–2.

mosque and a very large palace. Demolishing the church at Ludd for its marbles and columns was considered a bad idea, so he wrote to the Byzantine Emperor, who sent him an agent “who indicated a place whence he could extract columns of unparalleled dimensions and beauty. They were also able to extract marbles both sawn and unsawn, amply sufficient for the mosque. It was said that this was in a property of Daroum near Gaza, which was called Amuda (Columns).” The Christians were then made to carry the materials to the site of the new mosque.¹⁸⁶ The imported Greek, obviously having done marble-prospecting elsewhere in the Empire (and it could well have involved tunneling for material buried by humans as well as by the sands of time), found the necessary columns from what must have been a stockpile if they had the choice of sawn and non-sawn. Mas’udi’s account of the same building process leaves out the Greek inspector, and substitutes a direct threat to the Christians, as told to him by his uncle. That is, the emir was informed that the Christians had stockpiles of marble buried in the sand, and were given the choice of uncovering them or of having the church at Ludd destroyed.¹⁸⁷ Both accounts agreed that the columns were enormous, long and beautiful, and that there was sufficient marble to pave the mosque.¹⁸⁸ William of Tyre recounts the town’s riches;¹⁸⁹ and indeed, Gaza still had plenty of marble to admire in the 18th century,¹⁹⁰ and her mosques today certainly contain plenty of marble, but displayed much more in the 19th century.¹⁹¹ The Al-Umari Mosque was made from a 5th-century church, containing pillars of limestone fronted by columns and capitals of marble, and retaining

¹⁸⁶ Gaudefroy-Demombynes, Maurice, *La Syrie à l’époque des Mamelouks d’après les auteurs arabes*, (Paris 1923), 3, 57–8.

¹⁸⁷ Mas’udi, *Prairies*, II, 184–5.

¹⁸⁸ Gaudefroy-Demombynes, *La Syrie*, 58 also refers to al-Muqaddasi’s report that Abd Al-Malik learned that the Christians had a cache of columns put aside for building a church at Bala’a, and made them hand them over to ornament the mosque at Ramla. Cf. Al-Muqaddasi, *Best divisions*, 140.

¹⁸⁹ Chronicle, XVII.12: “Gaza, civitas antiquissima . . . edificii preclara, cuius antique nobilitatis in ecclesiis et amplis domibus, licet dirutis, in marmore et magnis lapidibus, in multitudine cisternarum, puteorum quoque aquarum viventium, multa et grandia exstabant argumenta.”

¹⁹⁰ Volney, C.-E., *Voyage en Syrie et en Egypte, pendant les années 1783, 1784 et 1785*, (Paris 1787), 312: “La position de Gaze, en la rendant le moyen de communication de ces deux peuples, en a fait de tout temps une ville assez importante. Les ruines de marbre blanc que l’on y trouve encore quelquefois, prouvent que jadis elle fut le séjour du luxe et de l’opulence.”

¹⁹¹ dvd_spolia_a_definition_in_ruins.doc for further details.

34 capitals before World War I. Three of its inscriptions are in re-use, with the largest a block measuring 4.95×0.22 m. Similarly, the Friday Mosque of Ibn Marwan (an inscription states that it was renewed in 1370) boasts earlier capitals.¹⁹² With other discoveries, it is difficult to know whether they were caches of columns deliberately buried, or simply covered by the sands, as with the discovery of 20 shafts at Rosetta in the 18th century.¹⁹³

Unless ruinous, Christian churches were generally protected under Islam, as were synagogues,¹⁹⁴ and worship continued in the Holy Land and in Syria—although mediaeval accounts sometimes note that treasure (including marble?) was to be found under churches, indicating perhaps an awareness that these were often built on older sites.¹⁹⁵ But care was needed when using marble. Thus in 1229 a Christian treasurer of the Sultan at Damascus had channelled funds into rebuilding the church of S. Mary, and he enlarged the entrance doorway and embellished the whole building. Caught and punished, all the new works were dismantled, and the church taken back to its earlier state—with the embellishments (of marble?), presumably going to some mosque.¹⁹⁶ Much later, in 1489 Domenico di Piero, the Guardian Grande of the Scuola Grande di S. Marco at Venice, bought marble panels from the procurators of S. Marco to be used for the façade of his house, so they must have kept a stockpile and surpluses.¹⁹⁷

Parallel treasures were indeed stockpiled, as Abou Yousof Ya'koub (731–98) expounds in his tax manual, which was addressed to Harun Al-Rashid. Mined products such as gold and silver were given rules for

¹⁹² Sadek, Mohamed-Moain, *Die mamlukische Architektur der Stadt Gaza*, (Berlin 1991), 49–104 for the al-Umari Mosque (originally 34 marble capitals: see plate 62a–l; inscriptions 6, 11, 12 are re-used, the largest from a slab of marble 4.95×0.22 m); 113ff. for the Friday Mosque of Ibn Marwan, where an inscription says it was renewed in 1370; cf. plates 128–30, 131a–g for re-used capitals.

¹⁹³ Volney, *Voyage en Syrie*, 29: “M Niebuhr en cite un exemple remarquable. Pendant qu’ il était à Rosette, (en 1762) le hasard fit découvrir dans les collines de sable qui sont au sud de la ville, diverses ruines anciennes, et entr’autres vingt belles colonnes de marbre d’un travail grec, sans que la tradition pût dire quel avait été le nom du lieu.”

¹⁹⁴ *Ibn Iyas, Mamlouks*, 114: Dec. 1474/Jan. 1475: the Cadi of Jerusalem and various dignitaries were brought to Cairo in chains, accused of having demolished a synagogue, and amidst a flurry of fatwas on both sides of the demolition/retention argument.

¹⁹⁵ El Daly, Okasha, *Egyptology: the missing millennium. Ancient Egypt in medieval Arabic writings*, (London 2005), 38.

¹⁹⁶ *Recueil des Historiens des Croisades, Historiens Orientaux*, V, 192–3.

¹⁹⁷ Sohm, Philip L., *The Scuola Grande di San Marco, 1437–1550: the architecture of a Venetian lay confraternity*, (New York 1982, 121 note 7.

division as booty, as were “old treasures or deposits without an owner, consisting in gold, precious stones or clothing,” while “stone taken out of the ground” had its own rules.¹⁹⁸ There were strict rules for dealing with churches and synagogues in conquered cities, “on condition that neither churches nor synagogues inside or outside the walls were to be destroyed.”¹⁹⁹

Transport by sea

If in these days of globalization, transport seems an incidental, in both Antiquity and the Middle Ages its difficulties added to the prestige of materials, so that a marble precious in Tunisia was much more so in Rome, because of the transport involved.²⁰⁰ The bigger the blocks, the greater the prestige—the only reason for the monolithic monsters (smaller than perhaps intended, as we have seen) gracing the Pantheon, and carried on large-capacity vessels.²⁰¹ Complete façades were shipped to Palestine, especially Caesarea.²⁰² Yet bigger were the obelisks, which came to Rome at much the same time as the taste for marble developed. For Pliny, in marble quarrying mountains are eviscerated and transported because pleasure dictates it, and he hated such ostentation (NH XXXVI.i.1–3, xiv.68). But he admired engineering efficiency,²⁰³

¹⁹⁸ Makrizi, *Histoire d’Égypte*, viii, 502–3: 100 chests of rich clothing were found in the Citadel storerooms in 1172. In the same year gold, silver, clothing, jewels and “precious vases”—*pietra dura*, perhaps?—were taken from the Fatimid Palace.

¹⁹⁹ Fagnan, E., ed., *Abou Yousof Yâ’koub, Livre de l’impôt foncier*, (Paris 1921), 33–4, 107, 213.

²⁰⁰ Dodge, Hazel, “Ancient marble studies: recent research,” *JRA* 4 1991, 28–50: 39–45 for shipping and distribution.

²⁰¹ Cagnana, Aurora, *Archeologia dei materiali da costruzione*, (Mantua 2000), 57 suggests cargoes of 100–200 tons; and cf. Hellenkemper Salies, Gisela, et al., *Das Wrack. Der antike Schiffsfund von Mahdiya*, I, (Cologne 1994), especially 179ff., and 375ff. for its own old materials—classical reliefs. See 759ff. for map and table detailing 48 wrecks, carrying bronze, statuary, columns, or sarcophagi. Jackson, *Empire’s edge*, 44–6, for a list of surviving 15-metre-plus monoliths.

²⁰² Fischer, *Marble studies*, 231–2: the actual building stone remained ashlar, and “Marble was introduced mainly as veneer, whereas tectonic elements such as most bases, pedestals and columns may have been of local stone.”

²⁰³ Humphrey, John William, et al., *Greek and Roman technology: annotated translations of Greek and Latin texts*, (London 1998), e.g. 263: NH XXXVI.95–7 for raising the huge epistyle blocks on the Temple of Diana at Ephesus, or 263–4, NH XXXVI.90 for the fine balance of lathe-turned, marble drums (probably the Temple of Hera on Samos).

and the marvel of obelisks is precisely in their transportation.²⁰⁴ If Pliny is correct that Crassus was the first to import marble columns to Rome (from Hymettus, and nearly 4m high: NH17.6, 36.7) then it surely took a millionaire to organise the transport, in c.100 BC, well before the Imperial system got started. Crassus displayed them in his theatre—the curiosity no doubt being as much in the transport of such monsters from Greece as in their material. Al-Baghdadi (d.1231), like many in the Middle Ages, was convinced that the ancients were giants, and moved such loads by magic.²⁰⁵ This is why a sheet of marble measuring 6m by 3m was still to be seen at Carthage in the 12th century, although spoliation was in full swing.²⁰⁶

Such kudos conferred by the very carrying, and the effort required to shift large columns, is a staple of mediaeval and later accounts, the end result of which helped weld the previous to the present owners. This was kudos by osmosis, as it were, as with the great Asoka pillars in India, where their re-use provided a conscious link to the pre-Muslim past.²⁰⁷ Osmosis applied also to holy as well as political relics, and the very act of getting conferred status so that, as Geary remarks, a relic “was valuable because it had been worth stealing”²⁰⁸—similar to re-used marble. Hence objects difficult to obtain and transport over large distances by sea or even land almost take on the complexion of trophies, won in peace not in war (see the next chapter), which is why Pisa proclaims the fact in inscriptions.²⁰⁹ The Byzantines certainly transported marble by sea, such as the sixth-century (?) Marzameni “Church Wreck” which carried prefabricated proconnesian marble

²⁰⁴ Parker, Grant, “Narrating monumentality: the Piazza Navona obelisk,” *Jnl of Mediterranean Archaeology* 16.2 2003, 193–215; see 209, and 201ff. for Domitian’s ambitious building projects and their transport implications; Humphrey, John William, et al., *Greek and Roman technology: annotated translations of Greek and Latin texts*, (London & New York 1998), 195, 462 for the context.

²⁰⁵ El Daly, *Egyptology: the missing millennium*, 174.

²⁰⁶ Fagnan, *Afrique septentrionale*, 20–4.

²⁰⁷ Welch, Anthony, “Architectural patronage and the past: the Tughluq sultans of India,” *Mugharnas* X 1993, pp. 311–322; see 320. It bears pointing out that Asoka (reigned c.272–31 BC) erected tall columns long before the Romans: the one at Allahabad Fort is 10.7m tall, and that at Vaisali is a monolith nearly 7m tall.

²⁰⁸ Geary, Patrick, “Sacred commodities: the circulation of medieval relics,” in Appadurai, Arjun, ed., *The Social Life of Things*, (New York 1986), 169–191, 187.

²⁰⁹ Sanpaolesi, Paolo, “La facciata della cattedrale di Pisa,” *Rivista Ist.Naz d’Archeologia e Storia dell’Arte* V–VI 1956–7, 248–394; see 320 for the suggestion that Buschetto’s inscription on the façade (with its “dena puellarum turba levebat onus”) must refer to lifting machines.

sections, probably for a church in North Africa (similar sets survive in Cyrenaica).²¹⁰ But for the Middle Ages in the West we have no evidence at all for marble sea transport, and indeed only one likely mediaeval and non-Byzantine stone-carrying wreck.²¹¹ But Cagnana is categorical that, as well as documentary knowledge of provisioning for the cathedrals of Florence and Milan, loads of marble from classical buildings circulated in the time of the Crusades.²¹² Although Luni's forum had been stripped of its marble by then, Orvietani Busch argues that the port of Luni—the only way to ship Carrara marble—was active in the 6th and 7th centuries, albeit with silting a problem,²¹³ and still a problem in the 19th century, when the sea-wall might still have existed.²¹⁴ For the Islamic world, although some materials in Córdoba and Kairouan were probably local, and materials for Damascus from further afield within (the Roman province of) Syria, all three centres have marble which must have been imported by sea. The marbling of Almería by Almotacin might have been from ancient stockpiles, but was probably from quarries in the area.²¹⁵

Ships need ballasting in order to be stable and manouevrable, and its bulk-for-weight makes marble useful ballast. Indeed, it would be better than the usual collection of stones or gravel, because its intrinsic value made it saleable at the end of the journey, sitting underneath the real cargo from which the main profit would be made. Looking at the conformation of ship hulls, it is clear that a few extra-long

²¹⁰ *Christian monuments of Cyrenaica*, 27–32 including column sets, chancel-screens and posts. Prefabricated material found in 14 sites of the Pentapolis.

²¹¹ At the Punta del Diavolo, Isola di S. Domini (Isole Tremiti): cf. De Juliis, E.M., “Archeologia subacquea in Puglia: blanci e prospettive,” *Boll. D'Arte* suppl. 4 1982, 87–8: “probabilmente di età medievale, con un carico di blocchi di pietre squadrate di varia forma e misura.”

²¹² Cagnana, *Archeologia dei materiali da costruzione*, 57.

²¹³ Orvietani Busch, Silvia, “An interdisciplinary and comparative approach to northern Tuscan ports in the early and high Middle Ages,” in Simon, Larry J., ed., *Iberia and the Mediterranean world of the Middle Ages: studies in honor of Robert I. Burns*, (Leiden 1995), 161–84: see 165.

²¹⁴ Jervis, W.P., *The mineral resources of Central Italy*, (London 1868), 5, for blocks with mooring rings: “Some years ago there still remained large blocks of marble, believed to have formed part of the sea-wall of Luna.”

²¹⁵ Tapia Garrido, José Angel, *Almería musulmana hasta la conquista de Almería por Alfonso VII (711–1147 de J.C.)*, (Almería 1976), 267: he transformed the Jayran fortress in the citadel into “un aéreo palacio de mármol rodeado de jardines...transfigurado en la más deliciosa mansión nque se pudo soñar, con amplios salones enlosados de blanco mármol.” Presumably all this was carted away after the sack of 1147, when one account (459) notes that “atque ad ultimum funditus destruxit eam.”

columns could help in the stable packing of other ballast. I know of no mediaeval documents citing marble transport, although stone was certainly carried in ships, sometimes as ballast.²¹⁶ Antique wrecks have been investigated, and they certainly included marble in their ballast.²¹⁷ Similarly, no mediaeval descriptions of marble-as-ballast have survived, but modern scholarship has identified an inscription originally from Iasos but found at Chios, where it had presumably been taken as ballast.²¹⁸ It has been suggested that the marble paterae so common on Venetian façades arrived there as ballast.²¹⁹ In any case, surely they were carved from fragmentary sawn-up column-shafts (the whole ones being used as columns), whether that happened in the East or at Venice (or at Aquileia, where they are also to be found). And from later centuries, we know that both bricks and iron made excellent ballast.²²⁰ Montesquieu provides a (late) key by which the transport of marble may be explained. Holland in a sense had its own marble quarries and forests because her sea-captains took marble as ballast, and wood as cargo²²¹—the light bulk above the heavy ballast. Equally, she could export grain and import marble. Amsterdam sent grain to Italy, and brought back marble, making her the “marble emporium” of Northern Europe.²²² This ballast/cargo division might help account for the

²¹⁶ Buckland, P.C., & Sadler, Jon, “Ballast and building stone: a discussion,” in Parsons, David, ed., *Stone: quarrying and building in England AD 43–1525*, (Chichester 1990), 114–25; see 115: “Rocks from the Campania and Rome’s demolition debris might therefore be expected to form a proportion of Sicilian Cyrenaican and Nile Delta Roman deposits...it is tempting to see in the Mahdia wreck, a 1st-century loss off the coast of Tunisia, with its 270 tonnes of marble, a grain ship returning in saleable ballast.”

²¹⁷ Pensabene, “Il fenomeno del marmo,” 34–46. Cantisani, E., et al., “Characterisation of stones used as stowage and ballast in the ships of the ancient San Rossore harbour (Pisa),” presented to the 1993 conference of ASMOSIA, but not yet published cf. http://www.eeescience.utoledo.edu/ASMOSIA/Proceedings/Trans_List.htm.

²¹⁸ Harding, Phillip, ed. & trans., *From the End of the Peloponnesian War to the Battle of Issus*, (Cambridge 1984), 114.

²¹⁹ Swiechowski, Zygmunt, *Romanische Reliefs von venezianischen Fassaden: ‘patere e formelle,’* (Wiesbaden 1982), 21.

²²⁰ The bricks for San Francisco Old S. Mary’s Cathedral went round Cape Horn from New England; and cast-iron Birmingham-made “lacework” balcony rails and pierced “transennae” decorate many houses in Australia.

²²¹ Montesquieu, Charles, *De l’esprit des lois*, (Geneva 1748), Section 4 chap 6, Quelques effets d’une grande navigation.

²²² McCusker, John J., *Essays in the economic history of the Atlantic world*, (London 1997), 63; Davies; David W., *A primer of Dutch seventeenth century overseas trade*, (The Hague 1961), 41–2.

absence of marble from trade documents: it was not formal cargo, but instead a nice little earner for captain and crew.

Monolithic marble columns were easily handled because they required from sailors skills similar to those for shipping masts (the former heavier, the latter longer). And given the large throwing weapons which were routinely ship-mounted during the Crusades (and perhaps earlier), a crew would have made light work of getting old columns etc. on board, in any case needing perhaps damaged shafts as raw materials for projectiles with which to feed such weapons. Moving on land, as opposed to on a ship with a derrick, was a different matter. Thus the circus obelisk at Arles was raised in 1676 with the help of eight large ship's masts, and placed in the main square, the happy conjunction of obelisk and Sun King being of course more than a coincidence.²²³ But the task was far from easy, taking 20 men, three capstans and associated pulleys and cordage forty days to move the obelisk under a kilometre to its present location in the square in front of S. Trophîme.²²⁴ Likewise, Fontana's moving of the Vatican Obelisk in 1586 occasioned prints, frescoes and a book recounting this heroic engineering feat.

Such interchangeability between shipping masts and loading marble perhaps happened in our period, but there is only a much later illustration of the practice. This concerns a man who used to transport marble, but now (in 1692) does ship-masts instead—and “gave me advice about pieces of marble from which to make cannon balls and other small objects.”²²⁵ Dismantling was no more of a problem: for Elgin's marbles in Athens, on 31st July 1801: “the Ship-Carpenter and five of the Crew mounted the walls of the Temple of Minerva, and with the aid of Windlasses, cordage and twenty Greeks, they succeeded in detaching and lowering down, without the slightest accident, one of the Statues or Groups in the Metopes.”²²⁶ So for sailors, handling a marble block was much like manœuvring a cannon—just as climbing monuments to spoliage them was like shinning up a mast.²²⁷ Antiquities probably did

²²³ Séguin, I., *Les Antiquitez d'Arles, traités en manière d'entretien, et d'itinéraire, ou sont décrites plusieurs nouvelles Découvertes qui n'ont pas encore veu le jour*, (Arles 1687), 4f.

²²⁴ Heijmans, Marc, et al., *Arles antique*, (Paris 2006), 92–5.

²²⁵ Archives Nationales O/1/2066; *Magazin de Marbres*: Martin to Louvois.

²²⁶ Hunt, Philip, & Smith, A.H. “Lord Elgin and his collection,” *JHS* 36 1916 163–372; see 196.

²²⁷ Texier, *Asie Mineure*, at Didyma in the 1830s: There was no ladder in the village, “mais le commandant fit venir quelques matelots avec une chaise volante des agres; on lança avec une pierre une petite corde par-dessus l'architrave; elle servit pour en

traverse the mediaeval Mediterranean: the “Church Wreck”²²⁸ mentioned above has amphorae aboard dated 5–7th century. The columns it carried were fluted, which suggests they were old, since fluting was always done with the columns erected. The divers suspected (the wreck has not been completely studied) that either the marble was ballast, or it was materials for a church.²²⁹ And there is one curious reference to a man called Nicholas Pipe diving at the Straits of Messina “on the orders of King Roger of Sicily,”²³⁰ so surely he was either looking for wrecks, or recovering lost goods.

We might guess that transport of moderate blocks of marble by sea was no problem at all for either commercial or military vessels in the Middle Ages, and some scholars have tended to underestimate just how much shipping populated the Mediterranean, as well as the carrying capacity of mediaeval ships, which could be up to 600 tons dead cargo weight.²³¹ We also know that some ships went part-empty on voyages to, for example, Syria, where more supplies would be loaded. Shipping contracts giving details are plentiful, but they specify foodstuffs, textiles or slaves, not marble. One example, if an exceptionally large one, is provided by the 1201 contract for the Fourth Crusade, which called for transport for 4,500 horses, 9,000 squires, 4,500 knights and 20,000 foot sergeants. Fewer left than were contracted for, but the carrying capacity contracted was formidable²³²—and quite enough for many or all of the marbles decorating S. Marco in Venice, for those arguing they were from the 1204 Sack. In addition, Venice used converted warships for conveying stone from Istria, and special vessels called “marani”²³³ which could take up to 200 tons. This capacity is illustrated by a very

monter une plus forte, et bientôt un matelot, en s’aidant des cannelures, fut en haut de la colonne, au grand étonnement des Grecs”—then Texier went up in the chair.

²²⁸ <http://www.diveturkey.com/soa/english/index.htm>

²²⁹ Kapitän, G., “The Church Wreck of Marzamemi,” *Archaeology* 22 (1969), 122–133.

²³⁰ Banks, S.E., & Binns, J.W., eds., *Gervase of Tilbury, ca. 1160–ca. 1211, “Otia imperialia: recreation for an emperor,”* (Oxford 2002), 333–5. Salimbene de Adam records that it was Frederick II who sent one “Nicholas,” a Sicilian, many times into the depths, which eventually killed him.

²³¹ Byrne, Eugene Hugh, *Genoese shipping in the twelfth and thirteenth centuries*, (Cambridge, Mass., 1930), 11.

²³² Pryor, John H., “The Venetian fleet for the Fourth Crusade,” in Bull, Marcus, & Housley, Norman, *The experience of crusading, I, Western approaches*, (Cambridge 2003), 103–123; 114 for the contract of 1201.

²³³ Hocquet, Jean-Claude, *Denaro, navi e mercanti a Venezia 1200–1600*, (Rome 1999), 193–215; see 194; Connell, *Sculptors and stonemasons*, 105ff.

tall story from 1354: an unfortunate porter who made only 19 journeys one year with his four vessels instead of the contracted 20 was put to death between the very marble columns of the Ducal Palace he had shipped from Orsera.²³⁴ We have illustrations of later vessels that could carry great weights: a Renaissance *De Re Militari* shows a machine called a sambuca could also be mounted between two ships, and lifting the great bar of a battering ram—perhaps a setup that could have been employed for moving very large masts and columns.²³⁵

Equally, we should not underestimate the difficulties of getting very large columns or blocks aboard ship. There are no mediaeval accounts of this (although it is known donkeys and camels were used at Mons Claudianus, and there is mention of a twelve-wheeled wagon),²³⁶ so Captain Smyth's experiences at Leptis Magna in 1816 must serve. Here were found "shapeless ruins scattered about, and half-buried under the mounds of sand, which the wind and waves mutually strive to accumulate upon the seashore." Smyth went to assess taking columns which the Pasha had offered to the King; but returning the following year he found most of them broken and on the ground, because the Arabs had heard about his intentions, and wanted to secure their future supply of millstones.²³⁷ So he had 100 workmen clear part of the city centre, and discovered that "Leptis had been completely ravaged in former times, and its public edifices demolished with diligent labour." He was nevertheless able to move 37 shafts and various architectural fragments to the beach and loaded them in a British store ship to the courtyard of the British Museum. But "four fine Cipolline columns of great magnitude" would not fit.²³⁸ Photographs of Leptis before the Italian excavations cleared away the sand show the scale of the problem—and columns and

²³⁴ Cf. <http://www.istrianet.org/istria/crafts-trades/masonry/pietra1.htm> for the mechanics of getting Istrian stone to Venice.

²³⁵ Zorzi, Marino, ed., *Biblioteca Marciana, Venezia*, (Florence 1988), Pl. LXXII, *Miscellanea Varia*, Cod. Lat Z 43v–44r.

²³⁶ Maxfield, Valerie A., & Peacock, David P.S., *Survey and excavation: Mons Claudianus 1987–93, II, Excavations Part I*, (Cairo 2001), 296–8. No mule bones (a stronger animal) have been found there.

²³⁷ Volney, *Voyage en Syrie*, 255: "a lover of the arts would be indignant in Alexandria, to see columns from palaces sawn to make millstones." This was a common practice: Wadi Natrun has them, cut from red Aswan granite drums from some Pharaonic temple: cf. White, Hugh G. Evelyn, *The monasteries of the Wadi 'N Natrun, III, the architecture and archaeology*, (New York 1933), 127.

²³⁸ Russell, Michael, *History and present condition of the Barbary states*, (Edinburgh 1835), 227–8, 231.

capitals still on the shore, awaiting transport.²³⁹ The 1860–61 expedition to the Cyrenaica describes the transport of statues from Cyrene to the shore (and hence to the British Museum) in great detail, and the resources provided by the Royal Navy. For, as with earlier French antiquities-hunting expeditions, transport required the facilities of the State. After felling cedars for sledges, for local transport at the site, eventually came the problem of getting the material to the coast: this required three artillery wagons each with 30 sailors and a midshipman, and camels for the smaller items, long drag ropes, rocky descents without roads, and heavy surf—underlining just how many more resources would have been required to shift large columns.²⁴⁰ Beechey commented: “Still we were sorry to find that neither the raft-ports nor the hatchways of the Weymouth were capable of admitting three fine Cipolline columns of great magnitude, that, from their extreme beauty and perfection, we had been particularly anxious about.”²⁴¹ If a 19th-century warship²⁴² could not load such large columns (their dimensions unstated), then it is small wonder that the Middle Ages confined their attention and buildings to much shorter shafts.

Even in earlier centuries, there was surely a limit to what could be winched on board a ship. One witness to this is the broken granite shaft of more than 8m at Gulpinar, near to Alexandria Troas, probably abandoned when it broke.

Transport by land

Land transport, especially in hilly terrain, was avoided wherever possible, although this was not possible at sites such as Mons Claudianus.²⁴³ In Liguria, for example, Mannoni has shown just how taxing the

²³⁹ Romanelli, Pietro, *Leptis Magna*, (Rome 1925), figs 1–9, 44–5, 59.

²⁴⁰ Murdoch Smith, R., & Porcher, E.A., *History of the recent discoveries at Cyrene*, (London 1864), 45–7, 79–80.

²⁴¹ Beechey, F.W., & Beechey, H.W., *Proceedings of the expedition to explore the Northern coast of Africa, from Tripoly eastward, in 1821 and 1822, comprehending an account of the greater Syrtis and Cyrenaica, and of the ancient cities composing the Pentapolis*, (London 1828), 78.

²⁴² The standard British 32-pounder gun was 3.14m long, and weighed c.2.7 metric tons, or c.3.1 tons with its carriage—while a c.6m marble shaft weighed about twice this.

²⁴³ Peacock & Maxfield, *Survey and excavation: Mons Claudianus*, 259–71.

mountains made carting materials.²⁴⁴ But we should not overestimate the difficulties, given more recent demonstrations of handling large loads.²⁴⁵ Naturally rivers²⁴⁶ and canals were preferred, and several cities in (for example) Lombardy had easy access to the sea. Such ventures²⁴⁷ connected marble-rich places such as Ravenna/Classis with the cities on the banks of the Po. For example, Henry IV (undetermined date; emperor 1084–1105) conceded the opening of a “*navigazione usque in Padum*” to help the exchange of merchandise with Venice or Ravenna.²⁴⁸ Bologna fought naval battles with Venice in 1270–3 at the mouth of the Po, taking advantage not only of canals dug in the 12th and 13th centuries, but of some of the 3000km of “*navigazioni*” in the Valle Padana.²⁴⁹ Similarly, Modena had water-access in Antiquity, when Mussati and Righi suggest²⁵⁰ it was used to take marble there. At Piacenza, it is surely no coincidence that the enlargement of the waterways in 1139 coincides exactly with the rebuilding of the cathedral,²⁵¹ this might have been how the great granite sarcophagus

²⁴⁴ Mannoni, Tiziano, “Rapporti tra i porti e la rete stradale in Liguria dall’età romana al medioevo;” in De Maria, Lorenza, & Rita Turchetti, eds., *Rotte e porti del Mediterraneo dopo la caduta dell’Impero romano d’Occidente: continuità e innovazioni tecnologiche e funzionali*, (Rubbettino 2004), 275–90; see 284 for a table showing resistance to loads carried and dragged, on the flat and uphill.

²⁴⁵ Adam, J.P., “A propos du trilithon de Baalbek: le transport et la mise en oeuvre des mégalithes,” *Syria* LIV 1977, 31–63; see 42–3, 49–51: the 1250-metric-tonne block of Karelia granite for the base of Peter the Great’s statue in his capital (half as heavy again as any of the Baalbek trilithon blocks) was moved by a sled and only 60 men; and Mussolini’s block of Carrara, 32m × 2.5m × 2.5m, weighing 560 tons, was pulled by 60 bullocks to a raft, thence to the Tiber, and still stands in the Foro Italico.

²⁴⁶ Hence it is unsurprising to find that Caen stone from the 11th century built structures on or very near rivers: cf. *Prigent, D., & Sapin, Ch., “La construction en pierre au Moyen Âge,” in Bessac, Claude, et al., *La construction. les matériaux durs: pierre et terre cuite*, rev. ed., (Paris 2004), 117–48 & fig. 2.

²⁴⁷ Schaube, *Handelsgeschichte*, paras 572–80.

²⁴⁸ Fasoli, Gina, “Navigazione fluviale—porti e navi sul Po,” *La navigazione mediterranea nell’alto medioevo*, (Spoleto 1978), 565–620; see 603; NB from the Rhône Germany could be reached: cf. her Plates I–III–IV for ports on the Rhône (10th–11thC), within the Coblenz tariff system (Rhine etc), and the Po.

²⁴⁹ Tosti di Valminuta, Fulco, *L’antica navigazione bolognese: una battaglia navale fra Bologna e Venezia nel XIII secolo*, (Citta di Castello, rev.ed. 1904): see 1, 5ff., 15ff., 29ff.

²⁵⁰ Mussati, Remy, & Righi, Elena, “Tracce di un’importante via d’acqua a Modena nell’antichità,” *Archeologie delle Acque* 4, July–Dec. 2000, 28–35.

²⁵¹ Spigaroli, Marcello, “Piacenza e le sue acque: navigazione fluviale, rivi urbani e sviluppo della città storica,” *Archeologie delle Acque*, 5 Jan.–June 2001 (for an issue on Canali e città d’acqua in Emilia Romagna), 14–22. Boucheron, Patrick, “A qui appartient la cathédrale? La fabrique et la cité dans l’Italie médiévale,” Boucheron, P., & Chiffolleau, J., eds., *Religion et société urbaine au Moyen Âge*, Paris 2000, 95–117; see 101: “Le lien entre les fabriques du Dome et les aménagements hydrauliques n’est d’ailleurs sans

outside S. Antonio arrived. Nearby, the construction of a branch-canal allowed the transport of marble from Lake Maggiore to within metres of the new Duomo building in Milan,²⁵² where such waterways were still to be seen (one with an adjacent marble yard) in the early 20th century. Milanese documents are laconic about quarrying but detailed about transport, and list the enormous quantities of marble needed to clothe the underlying brick building that is the new Duomo.²⁵³ Again in Milan, the 16 2nd-century columns of the colonnade in front of the Basilica of S. Lorenzo were possibly transported there when the church was built, but it is not known how far they were brought. And after all, we are still in the classical world, it appears, since the colonnade was re-erected as-is, rather than altered and re-made into a new design, so the result could be said to be in re-use only with difficulty.²⁵⁴

Transport by land was always expensive. Even small distances by land could double the cost of the marble. The cost of various marbles in the Edict of Diocletian (284/305) demonstrates that distance from the sea determined the price per cubit foot (and perhaps the desirability of the stone): Dokimeion (250km to the west coast) 200 deniers; Karystos 100; Thasos 50; Proconnesus 4. Nothing had changed 15000 years later: an 1880 account of estimated costs for Algerian quarries reports that from a quarry only 34km NE of Oran (on the coast) it was 50 francs cubic metre for extraction, then 40 francs for the 34km to Oran. The cost on the quay including royalties of 30 francs made 120, and the cubic metre cost nearly 200 on arrival at London.²⁵⁵ In Roman times, land transport as reflected in import costs seems to have augmented prestige,

doute pas fortuit. Il peut d'abord être fonctionnel... le lien est également politique... une expression idéologique du buon governo."

²⁵² Hunt, Edwin S., & Murray, James M., *A History of Business in Medieval Europe 1200–1550*, (Cambridge 1999), 43.

²⁵³ Pesez, J.M., "La renaissance de la construction en pierre après l'an mil," in Chapelot, Odette, & Benoît, Paul, eds., *Pierre et métal dans les bâtiments du Moyen Age*, (Paris 1985), 197–208; Braunstein, P., "Les débuts d'un chantier: le dôme de Milan sort de terre," in *ibid.*, 81–102; Sanvito, Paolo, "Le chantier de la cathédrale de Milan. Le problème des origines," in Aceto, Francesco et al., eds., *Chantiers médiévaux*, (Paris 1996), 291–325; and Lauzanne, Solange, "Gestion et exploitation des carrières XII^e–XV^e siècles: le laconisme des cartulaires," in *ibid.*, 17–26.

²⁵⁴ The Romans had occasionally transported whole buildings, not only many works transported from the quarries partially cut, but also the pediment of the refurbished Temple of Apollo Sosianus in Rome, brought from Greece, perhaps from Eretria: cf. Pliny NH xiii.53, xxxvi.28.

²⁵⁵ Report of Consul Playfair, "Marble quarries of Algeria," *Jnl of the Royal Society of Arts* 29 1880–1, 450.

just as distance did. Thus Mons Claudianus, a black and white salt-and-pepper granite (properly tonalite gneiss), which had to be brought overland across the desert to the Nile (a distance of some 70 miles), was prized more highly than pink Aswan granite, which was much easier to obtain, being floated down the Nile. In Asia Minor, the transport of marble for Istanbul created many cartage problems.²⁵⁶ Land transport in fact often multiplied the quarrying cost. For Beauvais Cathedral, after twelve miles the cartage cost more than the quarrying, while the timber for Beauvais Cathedral cost four times as much to move as to fell.²⁵⁷ The Romans had similar problems, as when Pliny attempted to balance the advantages of connecting the lake near Nicomedia with the sea: this would ease the transport of marble etc. but would it be worth the required labour to dig such a canal?²⁵⁸ In the Middle Ages, there is a relationship between transport and quarrying, because the prohibitive costs of land transport was a spur to the search for and opening of local quarries, a rash of which appeared probably soon after the Millennium, but generally for local use only, because “it suited the big landholders who commissioned the churches to exploit the resources of their own estates.”²⁵⁹ One example would be Studenica (Serbia), completed in 1191, and faced with marble presumably fresh-quarried from the nearby mountain.

How was land transport effected? This might sometimes be done by cart if the roads were reasonable, as probably happened in Euboea,²⁶⁰ but for our period a dragged sledge pulled by camels was probably normal in South and East. Adams relays Imperial documents about Mons Claudianus & Mons Porphyrites, and poses the problem of getting the tonalite gneiss and Imperial porphyry to the Nile, some considerable distance away. Camels were requisitioned for hauling porphyry columns, and Adams suggests that if each column weighed about 100

²⁵⁶ Vatin, “Notes sur l’exploitation du marbre,” 309ff.; 311: when in the 18th century columns were taken from Pergamon for the Nuru Osmaniye Mosque, carts with metal wheels were built, pulled by 35 pairs of buffaloes.

²⁵⁷ Bishop, Morris, *The Middle Ages*, (New York 2001), 186.

²⁵⁸ Greene, Kevin, *Archaeology of the Roman Economy*, (Berkeley 1990)—with a chapter dealing with stone, quarrying, transport etc.; see 34–5.

²⁵⁹ Kidson, *Architecture*, 699.

²⁶⁰ Vanhove, Doris, *Roman marble quarries in Southern Euboea, and the associated road systems*, (Leiden 1996), 35: plates 63–5, 75 for the cutting of columns on “benches” in the quarries. Burford, A., “Heavy transport in classical antiquity,” *Economic History Review* NS 13.1 1960, 1–18; 14 for calculations on the movement of column-drums, using oxen and costings.

tons, and if each camel could haul 1000kg,²⁶¹ then 100 camels would be needed to haul a 100-ton column. Naturally, he concludes that “The cost of transporting stone columns from Egypt to Rome was huge.”²⁶² Few such enormous columns were transported in the Middle Ages, but some less-enormous ones undoubtedly were, although probably only short distances.

In mediaeval Islam, transport by sea was easily calculated as faster and cheaper than transport by land, but often much more dangerous. Yusuf calculates that it cost under 4/5ths the price to transport goods by sea from Tunisia to Alexandria as it did to use camels from Damascus to Cairo, even though it was nearly 3.5 times the distance.²⁶³ The cost disparity was in part occasioned by the state of any roads or tracks. This could be why large shafts—two 60-footers, the same height as (the Aswan granite) Pompey’s Pillar at Alexandria—remain to this day at Mons Claudianus; so apparently no mediaeval Moslem tried to move them.²⁶⁴ Certainly Roman roads survived all over the Mediterranean, and part of the Via Appia, for example, has been shown to be a going concern.²⁶⁵ Indeed, Salama sees those in North Africa as an essential part of an opulent agricultural, trading and industrial network until the Hillalian invasions in the later 11th century.²⁶⁶ Roman roads did indeed last (Córdoba, for example, being well-served),²⁶⁷ and Procopius (Wars 5.14.6–11) marvels at the state of the Appian Way, some 900 years after its initial construction.²⁶⁸ It seems likely that such roads were in heavy use during the Middle Ages as well (the survival of aqueducts,

²⁶¹ Which roughly accords with Klapisch Zuber, Christiane, “Cercavano il pelo nel marmo,” *Medioevo*, 29 June 1999, 28–33: see 33: the “carrata” was the weight a pair of bullocks could pull—about 850kg.

²⁶² Adams, Colin E.P., “Who bore the burden? The organisation of stone transport in Roman Egypt,” in Salmon, John, & Mattingly, David, *Economies beyond agriculture in the classical world*, (London & NY 2001), 171–92: see 175, 184, 188.

²⁶³ Yusuf, *Economic survey*, 90ff.

²⁶⁴ Peacock & Maxfield, *Survey and excavation: Mons Claudianus*, 214: “it is worth noting that 60 foot columns in Mons Claudianus grandiorite are unknown outside the quarries. It is possible that they were destined for a project that was never realised or that the building, presumably in Rome, has yet to be found.”

²⁶⁵ Parziale, Eliza, “La Via Appia nel medioevo tra Velletri e Terracina: insediamenti e percorribilità,” *Arte Medievale* II XIV 1–2 2000, 123–38, although some of its stones were taken for building.

²⁶⁶ Salama, Pierre, *Les voies romaines de l’Afrique du nord*, (Algiers 1951), 99–104.

²⁶⁷ *Melchor Gil, Enrique, *Vías romanas de la provincia de Córdoba*, (Córdoba 1995), but nothing on post-antique use.

²⁶⁸ Humphrey, *Greek and Roman technology*, 414–5.

essential to survival, is better documented).²⁶⁹ The French were repairing Roman roads in Algeria in the 1830s for artillery transport, and if we do not know their state of repair during the Middle Ages, their solidity of construction and good drainage would ensure longevity. In Syria, Abd Al-Malik built roads, or repaired some which were probably Roman. A milestone describes his paving of the road from Damascus to Jerusalem,²⁷⁰ and another the flattening of a difficult pass between Damascus and Scythopolis.²⁷¹ This might have been done for mainly military reasons (such as the transport of siege engines), but would certainly have eased the transport of marble between the two sites. Scythopolis, for example, was a wreck when William of Tyre saw it.²⁷² Nevertheless, wheeled-carts were rare in Syria at this time, so marble would usually have been transported on camel-back, or dragged. Hence the movement of large quantities of marble by the Moslems (a) from North Africa to Syria and to Jerusalem; (b) from Alexandria to Cairo; (c) from Carthage to many points east. We may assume the furnishing of the mosques at Tunis, Kairouan and Córdoba meant great distances covered, and they went by sea whenever possible, because of the higher cost and lower speed of land transport.

Preparation of marbles

After quarrying, transport and perhaps stockpiling, the marble must be prepared for installation, and this entails cutting it. Stone can be cut with a saw aided by an abrasive, emery if it is hard (porphyry, granite, some marbles), and sand if it is soft.²⁷³ An inscription survives at Ephesus from the time of Antoninus Pius forbidding the cutting of marble by the quayside, because the emery and marble waste were silting up the channel. Emery was certainly exported from here and also from Izmir,

²⁶⁹ Grewe, K., *Beispiele für das Ueberleben römischer Fernwasserleitungen in mittelalterlicher Zeit, Wasserbau in der Geschichte*, (Braunschweig 1987), 101–21.

²⁷⁰ Ibid., 85–6.

²⁷¹ Sharon, Moshe, *Corpus inscriptionum Arabicarum Palaestinae, (CIAP)*, (New York 1997), 103ff.

²⁷² Chronicle XXII.27: “Scitopolis . . . olim universe metropolis Galilee, cuius nobilitatis argumenta ex edificiorum ruina pristinorum et multo marmore, quod in effractis edificiis invenitur, est colligere, nunc vero ad nichilum redacta raro incolitur habitatore, solo opidulo, quod in paludibus situm est, paucorum habitationi reservato.”

²⁷³ Connell, *Sculptors and stonemasons*, 144–5.

but whether this continued into the Middle Ages is not known.²⁷⁴ Such work is not difficult, if the sand is harder than the marble, and if the blade is dull.²⁷⁵ Butters charts a growth in confidence in the cutting of Cosmatesque pavements, including porphyry.²⁷⁶ Nasir-i Khusrau describes what he saw in 1047: “In the city of Ramlah there is marble in plenty, and most of the buildings and private houses are of this material; and, further, the surface thereof they do most beautifully sculpture and ornament. They cut the marble here with a toothless saw, which is worked with ‘Mekkah sand.’ They saw the marble in the length, as is the case with wood, to form the columns; not in the cross; also they cut it into slabs. The marbles that I saw here were of all colours, some variegated, some green, red, black, and white.”²⁷⁷ Presumably this was something of an industry, using marble from Roman sites, and also native stone. Little changed in technique down the centuries, so that Browne relates seeing antique columns cut up in eighteenth-century Alexandria, using tempered steel wedges: “the piece is cut off regular, and in a very short space of time.”²⁷⁸ Cutting veneer needs much more skill: an 11th-century MS of Rabanus Maurus in the Archives of Montecassino shows two men cutting with a saw a two-metre-plus block of marble (which is spotty and “interesting”), clearly to produce veneer.²⁷⁹ The results are presumably viewable in many a church, where semi-polished and undulating surfaces (that is, not polished flat, which required accurate rigs) abound. Re-used marble would usually have to be re-polished in order to shine. Jocelin of Brakelond tells of the translation of Edmund’s body (in 1198) into a splendid shrine, interrupted by a fire, at which point “the crest of the shrine was half finished, and the marble stones for raising and supporting the shrine had been largely prepared and polished...when the feast of S. Edmund drew nigh, the marble stones were polished, and all things were made ready

²⁷⁴ Evetts, *Churches and monasteries of Egypt*, 263: emery is also found in Nubia, near the cataract and town of Upper Maks. Author (early 13thC) says it was used for polishing precious stones, but doesn’t mention marble/granite.

²⁷⁵ Tegethoff, W.F., ed., *Calcium carbonate: from the cretaceous period into the 21st century*, (Basle 2002), 73–4.

²⁷⁶ Butters, Suzanne B., *The triumph of Vulcan: sculptors’ tools, porphyry, and the prince in ducal Florence*, (Florence 1996), 121.

²⁷⁷ Le Strange, Guy, trans & ed., *Nasir-i Khusrau. Diary of a journey through Syria and Palestine*, (London 1893), 132.

²⁷⁸ Browne, William George, *Travels in Africa*, (London 1799), 10.

²⁷⁹ Klapisch Zuber, “Cercavano il pelo nel marmo,” 32.

for the elevation of the shrine.”²⁸⁰ Such polishing (probably including oil, and wax to finish) must have been common, Magister Gregorius expressing wonder about the size of a column in Rome by noting that “the cardinals say that a hundred men could scarcely cut, polish and finish one of these in the course of a year.”²⁸¹

Cutting marble veneer might also have happened at Venice and at Damascus. For just as the large quantities of Proconnesus in Venice lead Lazzarini to believe the quarries remained open, so similar thoughts are prompted by the large quantities of veneer used in the Umayyad Mosque in Damascus.²⁸² How complete such refurbishments were is unknown,²⁸³ but large quantities of veneer were apparently required, and found—so what is the chance they were re-used? We are nowhere near the scale of DeLaine’s calculations for the Baths of Caracalla, but must assume that some large blocks were indeed available. Ward-Perkins’ estimate that a sarcophagus-sized block of Thassian marble would have yielded 3000 sq.metres of 1cm-thick veneer demonstrates that few such would have been needed. Presumably for the first veneering of the Umayyad Mosque, the Byzantines imported solid blocks and sawed them up on site. Did the mosque maintain a stockpile, perhaps, as building sites such as the Florentine Duomo certainly did?

Conclusion

The often patchy and fitful evidence presented above suggests that the long-accepted view that there was no quarrying for much of our period requires re-evaluation, especially in view of the overwhelming evidence that the Muslims did indeed quarry limestone and marble in both Syria and Spain. There is no way of evaluating just how much (if at all) stockpiles might have been scavenged for useable blocks but, assuming this happened, it diffuses somewhat the inexorable spotlight on re-use. Some large stockpiles survived the Middle Ages, and recent research at Proconnesus has uncovered large quantities of (early Byzantine?) roughed-out capitals the fellows to which might easily have

²⁸⁰ *Chronicle of The Abbey of St. Edmund’s (1173–1202)*, at <http://www.fordham.edu/halsall/basis/jocelin.html>.

²⁸¹ Osborne, John, ed. & trans, *Master Gregorius: the marvels of Rome*, (Toronto 1987), cap. 15.

²⁸² *dvd_building_restoring_umayyad_mosque.doc*.

²⁸³ Berchem, Max van, *Opera minora*; I, (Geneva 1978), 363, 507.

been taken—and finished—at a much later date. A stockpile could certainly be resurrected, so to speak, into a complete antique-looking building—and what could be more classical-tradition than such a transport of delight? It is at least possible that much of the porphyry decorating buildings in Cairo (and Istanbul?) came from roughed-out columns and blocks found at the quarries themselves.²⁸⁴

Indeed, the Moslems did too much building for supplies of ancient material to suffice, though we shall see that a fetish for monolithic columns (sometimes shared in the West) means that their architects were presented with much more difficult assembly problems than would have occurred with newly-quarried members in regular sizes. We shall also see that old marble retained its attraction for (to take but three examples from many) the great churches of Pisa, Venice and Modena, well past the 17th century and Louis XIV and into the Napoleonic period, when open quarries were plentiful.

²⁸⁴ Couyat, "La route de Myos," 30.

CHAPTER FOUR

LOOTED AND TROPHY MARBLE

Introduction: another method of acquisition

One practice indicating the prestige of marble was that of looting it in warfare along with other valuable commodities (silk,¹ precious metals, slaves, and ships' cargoes). Such loot could be used as payment for the troops, who presumably sold it on.² Although much older, the association between building, marble and victory would have been fixed in mediaeval minds through their reading of the deeds of the Romans, many of whose structures were the direct result of military success, and associated triumphs.³ This is distinct in process if not in result from the peaceable collection of marble. So when in the mid-9th century Agnellus of Ravenna orders his servants to demolish a palace just outside Ravenna,⁴ this is not strictly looting, but the normal appropriation of materials. Nor are fortuitous discoveries to be seen as trophies. The 10th century Egyptian list of hidden treasures (a kind of how-to-find-them manual) details ruins of churches, and it seems likely from the context that old marble was to be sought.⁵ Or when the ditch at Aleppo was being dug in 1213, slabs of black stone with inscriptions in Syrian letters were found, and gold and silver, plus two statuettes of lions, underneath them.⁶

¹ Silk was sometimes used as money. Cf. Goitein, S.D., "Sicily and southern Italy in the Cairo Geniza documents," *Archivio storico per la Sicilia orientale* 67 1971, 9–33; see 13: a man shipwrecked in Sicily in 1020s or 1030s sent his wife 10 pounds of silk, equivalent to about 20 dinars.

² For example, in 1101 the Kadi of Djible, Mohammed Obeyd-Allah (son of Al-Mansour), ceded money and valuables to help the Sultan pay the army, which included 1100 pieces of bronze "admirably worked." Cf. *Recueil: Historiens Orientaux*, I: *Chronicle of Kamel-Altevarykh* by Ibn-Alatyr, 126.

³ Favro, *Urban image*, 83–6 for a list.

⁴ Agnellus, *Pontiffs*, 38.

⁵ Daressy, Georges, "Indicateur topographique du Livre des perles enfouies," *BIFAO* 13 1917, 175–230, and 14 1918, 1–32; the full title continues: "et des mystères précieux, au sujet des indications des cachettes, des trouvailles et des trésors."

⁶ Makrizi, *Histoire d'Egypte*, IX, 154.

Sometimes we know that certain marble blocks were loot. Genoa not only took a bronze Islamic chandelier and two door valves as booty (doors were a popular type of booty),⁷ but also marble inscriptions from Pisa, and marble lions from the Venetians (from Pola and Trieste, duly inscribed), in 1380. She had already taken the chains from Porto Pisano after the Battle of Meloria, and hung them in S. Lorenzo.⁸ Pisa proclaims war booty (probably including marble) as the wealth enabling the construction of her Duomo, perhaps modelling herself on Augustus, who states in the *Res Gestae* (21.1) that he built both the temple of Mars Ultor and the Forum of Augustus “ex manubiis” (just as had Caesar for his forum and the Temple of Venus Genetrix). But many cases are less clear. One might wonder in such a context whether the two kufic inscriptions in SM in Castello in Genoa were also viewed as trophies;⁹ but for Venice we have no indication that their materials-gathering was other than by trade, gift or exchange.¹⁰ For Córdoba, there is a story that loot from Narbonne helped build the Mezquita;¹¹ but except for Al-Makkari’s assertion that the Palace at Córdoba was adorned with a knocker from the gates of Narbonne, we have no details about what was taken.¹² Certainly, one paleochristian church at Narbonne retains fragments of pavonazzetto and cipollino, but it is not known when these rich fittings were robbed.¹³ Again, one 13th-century author says

⁷ Beat Brenk, “Türen als Spolien und Baureliquien: Nova construere, sed amplius vetusta servare,” in Gahtgens, Thomas W., ed., *Künstlerischer Austausch—Artistic Exchange*, (Berlin 1993), 43–54. Al-Tabari XXIX.5 for the door “of pharaonic workmanship” taken to Baghdad from Syria in 763/4.

⁸ Lopez, Robert S., *Genova marinara nel Duecento: Benedetto Zaccaria, ammiraglio e mercante*, (Milan 1933), 120: they returned to Pisa only in 1860, to the Camposanto, “temple to the city’s glories.”

⁹ Details in Müller, Rebecca, *Sic hostes Ianua frangit. Spolien und Trophäen im mittelalterlichen Genua*, (Weimar 2002), catalogue entries 6, 9–10, 15–16 & 8 respectively.

¹⁰ Let alone why they left the bronze colossus on the beach at Barletta: details in Testini, P., “La statua di bronzo o ‘colosso’ di Barletta,” *Puglia Paleocristiana* 2 1974, 309–34; see 313.

¹¹ Nichols, James Mansfield, *Ibn al-Qutiya, Muammad ibn Umar, d.977, The history of the conquest of Al-Andalus*, Ph.D. University of North Carolina at Chapel Hill, (Ann Arbor 1975), 95: “‘Abd al-Wahid... captured Narbonne during his reign and with the fifth part of the booty of that campaign Hisan built the bridge and the mosque (viz. at Córdoba).” This fits with the discovery of Latin marks on some of the columns: cf. Souto, Juan A., “Stonemasons’ identification marks as a prosopographical source. The case of Umayyad al-Andalus,” *Medieval Prosopography* 23 2002, 229–45.

¹² Al-Makkari, *History*, I, 209, 207.

¹³ Solier, Yves, ed., *La basilique paléochrétienne du Clos de la Lombarde à Narbonne: cadre archéologique, vestiges et mobiliers*, (Paris 1991).

that when Abd Al-Malik took Carthage from the Byzantines in 695 he took the loot to Damascus.¹⁴

What is more, if mediaeval trophies were chosen with some of the discrimination the Romans sometimes displayed,¹⁵ we have no knowledge of this. Names can also indicate triumph. “Cairo” means “The Triumphant,” so we are intended to view the whole monumental city as a trophy to the conquest of Egypt and the victories of Islam. Outside our geographical area, the very name of the Kuwwat Al-Islam Mosque at Delhi (the “Triumph of Islam,” 1191ff.) proclaims Islam. It re-uses human-figured columns from some twenty-seven Hindu and Jain temples, all sandstone, capturing Hinduism, as it were, to serve Islam. The message is driven home with its minaret (the Kutb Minar, a mere 67.9m high), the penultimate storey of which is indeed marble.

Rome and Constantinople were full of marble monuments depicting victory with specific detail, hence themselves trophies.¹⁶ McCormick has detailed how a Byzantine triumph was organised, using prominent landmarks, especially some of the columns; and he points out that Rome was hailed in the 4th century as “capital of trophies.”¹⁷ In one case we know the Moslems took marble in war, for a marble table (a Christian altar or offering table?) was sent upon the conquest of Toledo back to Damascus.¹⁸ And there is no better trophy than a new country, “conquered” for the monarch: Diego Cao during his 1482–88 voyages of discovery down the coast of Africa was the first to carry marble pillars in the hold (from the environs of Lisbon), whereas his predecessors carried wood; of the four he set up which have been discovered

¹⁴ Ibn Gharnati in Fagnan, Edmond, ed., *Extraits inédits relatifs au Maghreb (géographie et histoire)*, (Algiers 1924), 9: his comment that “il n’y reste que des ruines en petite quantité” might be generously interpreted as hinting that part of the loot was marble.

¹⁵ McDonnell, Myles, “Roman aesthetics and the spoils of Syracuse,” in Dillon, Sheila, & Welch, Katherine E., eds., *Representations of war in ancient Rome*, (Cambridge 2006), 68–90; 78: for moralistic criticism of Greek art. La Rocca, Eugenio, “Der Apollo-Sosianus Tempel,” in Hoffer, Mathias René, ed., *Kaiser Augustus und die verlorene Republik*, (Mainz 1988), 121–36.

¹⁶ As perhaps marble monoliths etc. are transported great distances and won against the constant enemy, the sea: see the previous chapter.

¹⁷ McCormick, Michael, *Eternal victory: triumphal rulership in late antiquity, Byzantium, and the early medieval West*, (Cambridge 1987), 189ff., 84.

¹⁸ Al-Baladhuri, *Origins*, 366: Tarik “carried off a wonderful table, which Musa ibn-Nusair, on his return in the year 96, offered as a present to al-Walid ibn-Abd-Al Malik in Damascus.”

in situ, the inscriptions on two are still legible.¹⁹ For the Middle Ages, and in the almost total dearth of evidence from civic architecture, and palaces, it was mosques and churches that were themselves the trophies, or displayed trophy-like elements. Arguably this happened at Venice, where the horses from Constantinople, for Perry a political statement of “the recently conquered wealth of the eastern Mediterranean,”²⁰ were nevertheless apparently not placed in position until the mid-century. Perhaps they were just imitating Kiev, who took a quadriga from the Chersonese in 988.²¹ And of the rich cladding of S. Marco accounts of the Fourth Crusade write not a word, leading to the supposition that a city so adept at constructing a history for itself obtained them from elsewhere and at another period. Surely they would have proclaimed war trophies, as did Pisa and Genoa?

This chapter begins with a brief overview of trophy-looting, and then continues with a study of Pisa’s looting of Islamic materials to beautify her city. Finally it examines how Christians and Muslims dealt with marble in the city which was the greatest trophy of all, namely Jerusalem, conveniently encapsulating warfare, piety, Christian then Muslim triumph—and marble.

Overview of trophy-looting

Although there are many earlier examples of trophy looting in the Middle East, it was the Romans who beautified their cities with classical and Hellenistic works either looted or purchased, so that elements of their imported culture are little different from spolia,²² and displayed as such on the Arch of Titus. Already in 502, the Persian sack of Amida was described by Zachariah of Mytilene: “they also took down all the statues of the city, and the sundials, and the marble; and they collected the bronze and everything that pleased them; and they placed them upon wooden rafts that they made and sent them by the river Tigris.”²³

¹⁹ Ravenstein, E.G., “The voyages of Diego Cao and Bartholomeu Dias, 1482–88,” *Geographical Jnl* 16.6 Dec. 1900, 625–55; see 627–8.

²⁰ Perry, Marilyn, “Saint Mark’s trophies: legend, superstition and archaeology in Renaissance Venice,” *JWCI* XL 1977, 27–49; see 28.

²¹ Grabar, *L’art de la fin de l’antiquité*, 1096

²² dvd_spolia_a_definition_in_ruins.doc.

²³ Maas, Michael, *Readings in late Antiquity: a sourcebook*, (London & New York 2000), 291.

This may have been a general practice when they met resistance.²⁴ Such looting was often, of course, in order to fill the coffers emptied by the very war which offered cities to sack. Hence Chosroes was accused of especially harsh treatment at Edessa, including deportation and heavy taxation, “as well as carrying off building materials, especially marble, together with pedestals of gold and silver from the churches.”²⁵ There was plenty to take: Justinian’s post-524-flood reconstruction of the cathedral included three colonnaded porticoes, and a marble-veneered interior. The city suffered badly in 1184, when her largest church was demolished. For presumably the columns were carted away, leaving the only section that does not have any—namely the vault.²⁶

Like even more precious materials such as ivory,²⁷ marble was an element in political as well as religious legitimacy, and hence got displaced over large distances. When objects are carried over great distances to legitimize a ruler or honour a saint, we can view them as trophies. This is conspicuously the case with porphyry, the imperial stone. At Constantinople, Anna Comnena described the “purple room” as paved with marble, and is careful to underline that this was not run-of-the-mill easy-to-procure stock, but rather “the marble which the earlier Emperors had carried away from Rome”—namely porphyry.²⁸ Whatever that room’s date (and it is perhaps first attested in the 8th century), a tradition was preserved until Anna’s time telling of the specific—and imperial—source of the room’s trophy-marble. In the West, Lothair is reported to have taken a slab of porphyry from S. Apollinare in Classe (Ravenna), “enclosed in a wooden chest on wool, and carried it off to France, and placed it on the altar of S. Sebastian, as if it were a table”—and Agnellus could not bear to watch, although his bishop

²⁴ Butler, A.J., *The Arab Conquest of Egypt*, (London 1902), 90: the Persians in Syria “the custom was not merely to sack the captured places of every movable treasure, but to demolish the very buildings for the sake of beautiful columns or friezes or precious marbles, which they sent to adorn some palace of the Great King. Egypt was at least protected from vandalism of this sort by its very remoteness.”

²⁵ Foss, Clive, “The Persians in the Roman Near East (602–630 AD),” *Journal of the Royal Asiatic Society* 13.2 July 2003, 149–170; see 157. Mango, *Sources and documents*, 57–60 for a Syriac text hymning its splendours: “Its marble is like the Image not made with human hand, and its walls are harmoniously covered therewith.”

²⁶ Ibn Hawqal, *Configuration*, I.221.

²⁷ Matthews, Karen Rose, “Expressing political legitimacy and cultural identity through the use of earlier elements on the ambo of Henry II,” *Medieval Encounters* 5 1999, 156–183.

²⁸ *The Alexiad*, VII, online at <http://www.fordham.edu/halsall/basis/AnnaComnena-Alexiad.html>.

commanded him to oversee the workmen.²⁹ Did the porphyry slab go because the adjacent sarcophagus was too heavy, or too precious because of its occupant, or were sarcophagi not then generally in fashion? Or was it just that the practice of entombing bishops under a porphyry slab was spreading?³⁰

Victories in Byzantium over the Saracens had a particular resonance, because of the danger to very existence that they posed. Mango offers the happy suggestion that the embellishments to the Golden Gate in Constantinople formed a memorial to the triumph of Nicephorus Phocas in 965, “celebrated after his victories in Cilicia, for on that occasion he brought with him the bronze gates of conquered Tarsus and Mopsuestia, installing the former on the Acropolis walls, the latter at the Golden Gate. One can imagine the ensemble of ancient sculpture being created to set off the Arab spoils.”³¹

In the West, the practice of looting marble happily coincided with the search for even more valuable trophies, namely relics, which might be obtained by warfare or subterfuge, or sought by driven organisers such as Alcuin.³² Relics are viewed by Geary as a societal glue,³³ displayed to be admired in their expensive and often marble-rich new shrines. There is good evidence that the mediaeval hunt for relics, and especially the need to authenticate them, produced some very careful documentation, and hence knowledge of funerary ensembles where the bones were often found in marble vessels. (This practice was necessarily sidestepped when the subdividing of bones among many recipients became popular, and gave rise to the much smaller, and portable, precious-metal reliquaries.) Sigibertus of Gembloux describes visiting likely sites near Perugia in 970, in an area where the Emperor used to hunt, and near to an old monastery near the Tiber. He found a beautiful

²⁹ Agnellus, *Pontiffs*, 113.

³⁰ Picard, Jean-Charles, *Le souvenir des évêques: sépultures, listes épiscopales et culte des évêques en Italie du Nord des origines au X^e siècle*, (Rome 1988), 149ff., 187. Maurus was buried in a sarcophagus, with the slab of porphyry in front.

³¹ Mango, Cyril, “The Triumphal Way of Constantinople and the Golden Gate,” *DOP* 54 2000, 173–88; see 186.

³² Geary, Patrick, “Sacred commodities: the circulation of medieval relics,” in Appadurai, Arjun, ed., *The Social Life of Things*, (New York 1986), 169–191; cf. 182 for Alcuin’s correspondence: to Paulinus, the Patriarch of Aquileia; Angilbertus, chancellor of King Pepin of Italy; Bishop Agino of Konstanz; and Abbot Angilbertus of Centula.

³³ Geary, “Sacred commodities, 188: “high-prestige objects such as relics can play an important role in deeply divided communities.”

and ornate marble sarcophagus in a collapsed tomb.³⁴ Perhaps precisely because it was an essential element of many relic discoveries, marble was consistently viewed as the correct accompaniment for relics and their display in their new setting.

In Islam, the majority of looting was casual mis-appropriation, as when at Cairo in 1267 Baybars ordered his emirs to search all Egypt to find him marble columns; when in 1294 Emir Aibak Afram demolished several mosques to supply materials to his own mosque, el-Labban, now disappeared; how on the death of Emir Oulmas in 1333, the fine marbles in his palace were confiscated for use in the Citadel, or when in 1340 Emir Altunbuga Maridani received from the sultan wood and marble for his mosque, but took the columns from a Fatimid mosque founded by Hakim.³⁵ The practice of looting for trophies began early. Naturally enough, the main examples of looting come from the marble-rich lands of North Africa and Syria. Irwin³⁶ notes that the capitals in the 7th-century mosque at Kufa in Iraq were Persian, looted from Hira. Much mediaeval warfare took the form of small- or large-scale raiding by sea, and was the mirror of mediaeval commerce.³⁷ Occasionally we learn what was taken—saleable or precious-metal items such as foodstuffs, luxury goods, treasure, and people to sell as slaves; but generally details are lacking, since raiding was by its nature opportunistic.³⁸ Even the most sacred sites could suffer from co-religionists. Under the Abbasid Caliph Al-Muqtadir, in the early 10th century, Abu Tahir Soleiman wreaked havoc over Arabia, and at Mecca took the gold-covered door to the sanctuary, and silver and onyx mihrabs.³⁹ But in most cases, even when we know cities were sacked, we have only a general idea of what was taken, as for example with

³⁴ *Vita Deoderici* in MGH SS IV 472ff. (—with Section 16 entitled “On the avidity of those seeking holy relics”); e.g. 427; and cf. Dupré-Theseider, E., “La ‘granda rapina dei corpi santi’ dall’ Italia al tempo di Ottone,” *Festschrift Percy Ernst Schramm I*, (Wiesbaden 1964), 420–32.

³⁵ Hautecoeur, *Mosquées du Caire*, 140.

³⁶ Irwin, Robert, *Islamic art in context: art, architecture, and the literary world*, (New York 1997), 35–6.

³⁷ McCormick, *Origins*, 571ff., 696ff.

³⁸ E.g. *Bar Hebraeus*, 107: in 716 Maslima “captured Pergamos and Rhodes, and he emptied them of spoil”—details unknown.

³⁹ Carra de Vaux, Bernard, & Fuat, Sezgin eds., *Mas‘udi, Le livre de l’avertissement et de la revision*, (Frankfurt 1986), 2, 491. James Harrell suggests the stone was almost certainly travertine rather than true onyx, which is a form of agate.

Roger's activities in Southern Italy.⁴⁰ More is known about the 846 Muslim sack of Vatican and the outskirts of Rome,⁴¹ especially if the dig reported so sketchily by Lanciani did indeed reveal the Saracen camp.⁴² The display of Christian offering tables in Islamic contexts is not rare in Syria, and Flood wishes to see their re-use as nuanced, and transcending "the standard interpretative tropes of spoliation and trophy."⁴³ This makes sense, since such tables always bore Christian markings, thereby identifying them as trophies. Marble was also looted, surely to sell. In July 1497 factious Mamluks went "vers l'hôtel d'Aqbirdi, près de la montée des Boeufs; ces mamlouks mirent le feu à la salle de réception, dont ils enlevèrent les marbres, les boiseries et les portes," while in the following month hooligans and black slaves joined with Mamluk recruits who had left their barracks to ransack the Mosque of Sultan Hassan, taking marbles, windows, copper and doors.⁴⁴

But as well as looting marble in war, Muslims also bought it so as not to stain a holy structure by theft (a common theme in accounts of Islamic building). Thus Ibn Sasra, in what might be a very late pietistic gloss, tells that when Al-Walid built the Great Mosque at Damascus, "he collected marble, pillars and stone but took nothing from anyone without payment."⁴⁵ In this way also, Christian marbles could be integrated in Islamic contexts.⁴⁶ Ownership could be communal. Troops were used to scavenging, perhaps to supplement their pay, with Muawiya (d.680) supposedly sending figurines collected by his troops for sale in India.⁴⁷ One story has Caliph Umar dissuaded from selling off both marble veneers and mosaics from the Umayyad Mosque in Damascus

⁴⁰ Cf. Falconis Beneventani *Chronicon* RIS V for 1135–7: "bona eorum (Salerno)... ecclesias quidem et ornamenta earum (Capua)... spolia eius diripuit [Monte Corvino]."

⁴¹ LP 104 note 38: Prudentius of Troyes reports that they sacked San Paolo, "ablatis cum ipso altari quod tumbae memoratii apostolorum principis superpositum fuerit omnibus ornamentis atque thesauris"—which could be read to include re-used marble.

⁴² Lanciani, *Wanderings*, 150: Pietro Rocchi excavated the remains of a temple in the farm of La Valchetta "six miles below Rome, on the road to Ostia," "The infidels had overthrown the temple: but its columns, frieze, and capitals were found lying in situ together with an excellent statue of Bacchus in Pentelic marble."

⁴³ *Flood, Barry, "The medieval trophy as an art historical trope: Coptic and Byzantine 'altars' in Islamic contexts," *Muqarnas* 18 2001, 41–72; quote from 74.

⁴⁴ *Ibn Iyas, Mamlouks*, 404, 415.

⁴⁵ Brinner, William M., ed., *Ibn Sasra, Muhammad, A Chronicle of Damascus (1389–1397)*, (Berkeley & Los Angeles 1963), 160.

⁴⁶ Flood, "The medieval trophy," notes 2, 56 for examples and bibliography.

⁴⁷ El Daly, Okasha, *Egyptology: the missing millennium. Ancient Egypt in medieval Arabic writings*, (London 2005), 10.

because the troops had already collected them on campaign. As one of them protested, each of them was enjoined to bring back from the land of Rum a measure of mosaic cubes and a sheet of veined marble. Gold-backed glass tesserae (to represent Heaven) would have been especially popular.⁴⁸ Hence ownership was collective—and “so Umar fell silent.”⁴⁹ Was this a way tesserae and small sheets of veneer were often gathered—while on campaign, and brought back in the baggage train? If so, then some of the extensive mosaics in the Umayyad Mosque at Damascus may perhaps be seen as “gifts” from the Byzantine Emperor to complement the craftsmen he was supposedly asked to send, and others as a specific and collective exultation of triumph over destroyed Byzantium, or at least over some of her buildings. Then again, the point of the story about Umar is that the mosaics and veneer actually belonged to the plurality of the community (for civilians had also collected lead for its roofs), and therefore were not in fact his to dispose of. One scholar suggests that spolia were reserved almost exclusively for Friday mosques, and that the significance of this is that “It provides a visual emblem of the confirmation of Islam as God’s final revelation, and of Muhammad as the Seal of the prophets”⁵⁰—which it would be interesting to see documented.

Marble had a market price and, if we are to believe the *Livre des Deux Jardins*, loot was converted into cash after the Sack of Constantinople in 1204. The Frankish marines, called *Benadikah* [viz. Venetians—although it was not Constantinople they blessed] took marble sculptures from the churches and transported them into Egypt and Syria, and sold them there—and Venetian sailors might have collected antiquities on more than one occasion.⁵¹ This does not disprove the idea that S. Marco was decorated with material from the Sack, but surely renders it a little limp. A great many pieces of marble supposedly arrived at Damascus, and a certain Usamah, who was then embellishing his town house,

⁴⁸ In the Paleologan Apostoleion at Thessaloniki the figures have survived, but the gold tesserae making up the background have gone.

⁴⁹ Brinner, *Ibn Sasa, Chronicle*, 64.

⁵⁰ Bierman, Irene A., “Art and architecture in the medieval period,” in Petry, Carl F., ed., *The Cambridge history of Egypt* (Cambridge 1998), 1: *Islamic Egypt 640–1517*, 357.

⁵¹ De la Primaudaie, Elie, “Les arabes en Sicile et en Italie,” in Malte-Brun, *Nouvelles Annales des voyages de la géographie et de l’histoire*, 191 (Paris 1866), 150: when the Saracens besieged Syracuse in 877, help was sought from Constantinople, but “les matelots de la flotte impériale étaient alors employés à construire une église en l’honneur de la vierge Marie”—so were they scouring the seas for the building materials?

used them for decoration.⁵² (Some Damascus houses must have been sumptuous, judging by the “marble scandal” of 1258, when marble costing 10,000 dirhems was taken from a house near the Citadel to ornament a mosque).⁵³ It makes sense that it would be commercially-minded Venetian marines who used vessels to store and ship the material to the coast of Syria. Was such saleable marble, then, part of their share of the loot? Why did it not go to S. Marco, since that structure entertained no concept of “surplus to requirements”? If this account is correct, it was not an isolated practice, for materials which remained saleable were frequently looted by troops, presumably for sale. In the 14th century, a poem tells of the Turkish looting of what might have been of an Orthodox monastery, because there were gold-background mosaics, which the Turks took off and carried off in sacks in their ships. The editor believes this might have been near Mount Tragovouni (Greece), where there were ruins to be seen in the 20th century, with white marble column drums, capitals with the cross, and a scatter of mosaic tesserae, all very close to the sea.⁵⁴ No hint has survived of Turks themselves employing such materials at this date (the monuments of Bursa being faced in tile, not mosaic), so surely these tesserae were sold on to Christians, perhaps in Byzantium—or even for S. Marco, Venice. Again, little Islamic material in mediaeval treasuries seems to be booty, most items probably being bought commercially.⁵⁵

Booty was not necessarily collected for private gain, or even to pay the army. It could have a pious or a civic end or, in the construction of a church, both at once, as in the construction of the Duomo at Pisa, as we shall see. Seeking booty for such a purpose was probably commonplace. Wolf cites Geoffrey Malaterra on Roger’s promise to S. Andronius that he would use the booty he had acquired at Messina to rebuild a Calabrian church dedicated to the saint,⁵⁶ and that booty

⁵² *Recueil des Historiens des Croisades: Historiens Orientaux*, V, 154.

⁵³ Sublet, Jacqueline, ed., *Ibn As-Suq’I, Tali Kūtab Wafayāt al-A’yan*, (Damascus 1974), 193 & xxiii for gloss.

⁵⁴ Lemerle, Paul, *L’Emirat d’Aydin: Byzance et l’Occident. Recherches sur la Geste d’Umur Pacha*, (Paris 1957), 126 for verse 1140.

⁵⁵ Shalem, Avinoam, *Islam christianised. Islamic portable objects in the medieval church treasuries of the Latin West*, rev. ed. (Frankfurt 1998), with catalogue of 288 items. 72–92: Trophies, booty and spoils of war against “Saracens.” 56–71 for the dispersal of the Fatimid treasury—i.e. fire sale in 1061–9 to raise money; Makrizi says 18000 objects of crystal and muhkam glass were taken from the palace.

⁵⁶ Wolf, Kenneth Baxter, *Making history: the Normans and their historians in eleventh-century Italy*, (Philadelphia 1995), 163.

could have included marble.⁵⁷ Conveniently, Moslem artefacts were available, and the result of such piety would become a trophy both of battle and of the faith. One example of this is the “Cattedra di S. Pietro” in S. Pietro in Castello, Venice, which incorporates part of a Moslem tombstone as the backrest—surely as a symbol of Venetian triumph over one group of her commercial foes. Another is the story of how Umar, the second Caliph (634–44), scolded the Arabs for wearing brocade, got as spoils from victories over the Byzantines, considering such ostentation as a sin.⁵⁸

The collecting of trophies sometimes had a mirror image when, to the triumph of the winner was to be added the degradation of the loser by the obliteration of his treasures, including marble. Many examples could be cited from our period,⁵⁹ but one will suffice here, which demonstrates that marble was not invariably preserved as if it were some antiquarian pseudo-holy relic. Impressed as Frederick II no doubt was by the antique (cf. the large quantity of papers on the topic in 1994), this apparently did not stop him using it as a weapon, looting and destroying, for political as well as military ends. So in 1241, he looted marble from Ravenna and took it to Palermo,⁶⁰ and ordered marble slabs from Porta Aurea, and “all blocks, wherever they are found,” to the lime-kilns, to help build the Imperial castle at Ravenna.⁶¹ Such destruction of that city’s manifestations of antiquity and civic pride was far from unusual, and Frederick intentionally humiliated the citizens by destroying what were in effect their trophies of the past.

One interesting trophy is a monument, not of marble, but of stone cut and dressed in the Roman manner, and perhaps the only such structure in dressed stones between Tigris and Euphrates. This was built at Hiraqla, 10km W of Raqqa, under Harun Al-Rashid’s personal

⁵⁷ Cf. the fine re-used columns and capitals in the 12th-century Duomo at Gerace, both nave and crypt.

⁵⁸ El Cheikh-Saliba, Nadia Maria, *Byzantium viewed by the Arabs*, PhD (Harvard, Univ Microfilms, 1992), 189.

⁵⁹ Greenhalgh, *Survival*, chap 7.

⁶⁰ Crosara, Fulvio, “Federico II e Ravenna,” *Atti di Studi Federiciani*, (Palermo 1952), 255–81; see 279 notes 66 & 67. Rubei H., *Historiarum Ravennatum* Libri XI, Venice 1590, 6418: “Ex sede D. Vitalis columnas...complures et archiepiscopale marmoreum puteal multosque praeterea nobilissims lapides et praeclara ornamenta Ariminum invexit. Portam quoque auream...admirabili lapidum ac gemmarum ornatu spoliavit.” Cf. his note 67 to the *Cronaca Ravennate* in RR II SS anno 1241. Presumably this means Ravenna (Classis) was not navigable by F’s day.

⁶¹ *Spicilegium Ravennatis Historiae*, in RIS 1.2, 578.

direction, in a fortified circular enclosure. It is “a victory monument,” writes Meinecke, “to memorialize the conquest of the Byzantine city of Heraclea, today’s Eregli in Anatolia...Iconographically this monument was meant to express the superiority of the Muslim world over the Byzantine empire.”⁶² He maintains (against opposition)⁶³ that it was built “by foreign specialists, probably of Byzantine background, forcibly ordered to create this monument of imperial might.” And he points to the use of classical motifs such as egg-and-dart, dentil patterns, and bead molding. Unfortunately the structure is unfinished, and Harun’s successors did not indulge in such monuments. How about his predecessors? If imported craftsmen were indeed used, then might we view the construction of the Dome of the Rock by Byzantines not as a technological necessity on the part of Muslims lacking the necessary skills, but similarly as an explicit statement of Islamic triumph? The Kuwwat Al-Islam Mosque at Delhi mentioned at the start of this chapter certainly used Hindu craftsmen, and actual Hindu spolia (not just newly-created stylistic quotes, as at Hiraqla) were left in full display to underline the theme of conquest and superiority. So are the splendid marbles in the Dome of the Rock also symbols of conquest? Possibly we sometimes miss signs which might have been clear to contemporaries. Thus Allen⁶⁴ cites the Syriac Anonymous to the effect that stones from the Cathedral of Edessa were taken to Harran for the mosque in 1174—an appropriation which could have been noted because of the conspicuously high quality of the dressed stonework.

Pisa, Genoa and Mahdiyya

Moslem power was declining in the West in the 11th century (defeated near Messina in 1005, Sardinia lost in 1022, then Sicily), and much of this was due to Pisa and Genoa. We know about Pisan warlike activities against the Moslems because they celebrated them in writing, in the

⁶² Meinecke, Michael, *Patterns of stylistic change in Islamic architecture. Local traditions versus migrating artists*, (New York 1996), 23 & plate 7b.

⁶³ Tweir, Qassem, “Hiraqla de Harun al-Rasid: reminiscences byzantines,” in Canivet, Pierre, & Rey-Coquais, Jean-Paul, eds., *La Syrie de Byzance à l’Islam, VII^e–VIII^e siècles*, (Damascus 1992), 179–85: he believes the great cut stones are from an older tradition.

⁶⁴ Allen, Terry, *A classical revival in Islamic architecture*, (Wiesbaden 1986), 56.

Liber Maiolichinus and the *Carmen in victoria Pisanorum*, and in inscriptions as well. Pisa began her 1087 victory song with “Nam extendit modo Pisa laudem admirabilem, / quam olim recepit Roma vincendo Carthaginem,” while Corippus’ epic “In laudem Justini” (2nd half 6thC) sings of “nova Roma nitebat, certabantque ipsi iucunda palatia caelo.”⁶⁵ They supposedly built the Pisan church of S. Sisto in 1087 to exult the victory over Mahdiya. This was a “perpulchram ecclesiam” not least because it was erected with money obtained through booty from North Africa. Given the old columns inside, which form the best selection outside Rome, it is perhaps not impossible that they also came from North Africa as loot. It has also been suggested that the famous Islamic griffon, and an Islamic capital in the Opera del’Duomo, came from the sack of Almería in 1089, or that of the Balearics in 1114.⁶⁶ In addition, a colossal marble statue, probably a Hercules, of which elements survive, was placed next to the Porta Aurea in 1124, and perhaps reworked.⁶⁷ Triumphalism at Pisa therefore had a contemporary context, as it did at Genoa,⁶⁸ and to explain its use of marble by references to Roman renovatio is unnecessary. A combined Pisan/Genoese fleet had already raided Mahdiya in 1087 and ransomed it back to the Zirids, and the Pisans raided it again in 1088.⁶⁹ Maragone notes that the sack of Mahdiya (and nearby Sibilía) produced “a huge booty of gold, silver and ornaments” with the proceeds of which the Duomo of Pisa was then decorated.⁷⁰ The Pisans probably had their eyes constantly on the growing power of the Normans in S Italy,⁷¹ and surely saw how they handled marble. Nor should we forget the literary dimension when considering the impact North Africa and the East made on the West

⁶⁵ Hammer, William, “The concept of the new or second Rome in the Middle Ages,” *Speculum* 19.1 Jan. 1944, 50–62; 53 for Corippus, from MGH Auct. Ant. III.ii, 159.

⁶⁶ The suggestion is that of Monneret de Villard. Cf. Curatola, Giovanni, ed., *Eredità dell’Islam: arte islamica in Italia* (Venice 1993), cats 43 & 39, where the griffon is given as Spanish, 11th or 12thC.

⁶⁷ Scalia, Giuseppe, *Il console Rodolfo e Ferdinando I de’ Medici. Per la storia di due statue pisane*, (Rome 1987), 54ff., 81ff.

⁶⁸ Müller, *Sic hostes Ianua frangit*, passim.

⁶⁹ Cowdrey, Herbert E.J., “The Mahdiya Campaign of 1087,” *EHR*, XCII (1977), 1–29.

⁷⁰ Gentile, M.L., ed., *Annales Pisani di Bernardo Maragone*, (RIS2 6, 2), Bologna 1936: anno 1088.

⁷¹ Tangheroni, M., “Il mezzogiorno normanno-svevo visto da Pisa,” in Berti, Graziella, et al., eds., *Il mare, la terra, il ferro. Ricerche su Pisa medievale (secoli VII–XIII)*, (Pisa 2004), 93–107.

around the time of the Crusades. For in the *Chansons de Geste*, cities such as Carthage appear as lavishly decorated with marble,⁷² and with splendid marble walls; and the luxury of palaces and gardens is described in detail.⁷³

During vigorous warring and trading with North Africa, along the Tunisian coast, Pisa had contact especially with the great port of Mahdiya, and perhaps journeyed inland to admire the capital city of Kairouan, with its great mosque, and other marble-rich monuments as well.⁷⁴ Mahdiya, named by the eponymous Al-Mahdi, was a prestigious city in its own right, and just down the coast from Carthage. It was also the port for Kairouan, prosperous (as El-Bekri reported when he visited it in about 1060), and to be an enticing target for centuries, Ibn Khaldun describing it as “the treasury of Kairouan and the emporium of Sicily.”⁷⁵ Mahdiya had been sacked by the Hillalians in 1057, as the Pisans presumably knew; the Normans were to raid in 1123 and 1148, and later. Certainly, by Al-Edrisi’s day (d.1166), Sabra and Raqqada, mere palaces serviced by people transplanted from Kairouan, were in ruins⁷⁶—rich pickings if materials were sought. Kairouan itself survived, and its Great Mosque survived, though in what state is unknown. Much later, in 1270, it is suggested that six sets of armour were taken from Saint Louis’ troops besieging Tunis, and hung in the mosque at Kairouan⁷⁷—trophies, perhaps, to complement the columns and capitals, themselves also trophies.

When did N. African contacts with the West begin? We know Amalfi had early trade-links with Kairouan and Mahdiya,⁷⁸ and perhaps with

⁷² Croizy-Naquet, Catherine, *Thèbes, Troie et Carthage: poétique de la ville dans le roman antique au XII^e siècle*, (Paris 1994), 98ff., 11–24, 300–2.

⁷³ Labbé, Alain, *L’architecture des palais et des jardins dans les chansons de geste. Essai sur le thème du roi en majesté*, (Paris 1987).

⁷⁴ Gabrieli, Francesco, et al., *Maghreb Medieval. L’apogée de la civilisation islamique dans l’occident arabe*, (Aix en Provence 1991), plates 127 & 130 for the mosque by the Bab el Jedid, and the Zawiya of Sidi Sahib (or Mosque of the Barber), second courtyard.

⁷⁵ Rizzitano, U., ed., Amari, Michele, *Biblioteca arabo-sicula*, (Turin/Rome 1880, rev. ed., 3 vols Palermo 1997–8); in the Leiden MS, Appendix p. 85.

⁷⁶ Al-Edrisi, *La géographie*, I.260–1.

⁷⁷ De Lonlay, Dick, *En Tunisie: Souvenirs de sept mois de campagne*, (Paris 1882), 315— together with a cuirass and morion taken from Bohemond; but these were taken to Tunis just before the author made his visit.

⁷⁸ Citarella, Armando, *Il commercio di Amalfi nell’alto medioevo*, (Salerno 1977), 72, map: Amalfitan trading colonies and religious institutions in Kairouan, Mahdiya, Palermo, Messina, Siracusa, Durazzo, Constantinople, Antioch, Laodicea, Tyre, Acre, Jerusalem, Alexandria, Cairo and Fustat!

Córdoba as early as 941;⁷⁹ and Christians are documented at Kairouan in the 11th century.⁸⁰ But we lack information for Pisa, although there were Venetian ships in Mahdiya and Tripoli in 971—and apparently more Pisans than Genoese.⁸¹ On the way to Kairouan travellers would have passed the near-suburb of El-Casr el-Cadim,⁸² close to Sabra, which was founded from Kairouan in 947. In 1014–15 merchants were transplanted there from Kairouan. However, in 1057 as a result of the Hillalian sack Al-Mu'izz (the fourth Zirid ruler), who was a great spender and patron of the arts, fled to Mahdiya, and Sabra went into decline. The mosque at Sabra boasted a minaret described by El-Bekri, which he saw, and he finished his MS in 1068. This was cylindrical, built in bricks, and decorated with seven storeys of columns, and “Nobody ever built anything more solid or more beautiful.”⁸³ This was the town which, El-Bekri reminds us, became the residence of the Aghlabid emirs in 800, with baths, bazaars, and walls and gates—so presumably the columns of the mosque-tower came from “the old castle,” probably something Roman, which could even have been a theatre building.

As well as a commercial target, Mahdiya itself was also rich in marble, because it was built on ancient foundations. Even as late as the 16th century Marmól Caravaissal notes (correctly) that Mahdiya has so many antiquities (including a decorated marble fountain) that it must have been a large Roman colony⁸⁴—and he saw it only after Charles V blew up the city's fortifications in 1553. The land walls Charles destroyed, dated to 916–21, used marble columns as tie-bars,⁸⁵ and quantities are still to be seen serving the same purpose in the walls of the harbour. When built, the mosque was splendid with marble, although several ruinations and reconstructions have robbed it of impact. Its exterior, for

⁷⁹ Renzi Rizzo, Catia, “I rapporti diplomatici fra il re Ugo di Provenza e il califfo ‘Abd al-Raman III: fonti cristiani e fonti arabe a confronto,” in Berti, *Il mare, la terra, il ferro*, 247–77; see 270.

⁸⁰ Goitein, S.D., “The Mediterranean mind in the high Middle Ages (950–1250) as reflected in the Geniza Documents,” in Pontieri, Ernesto, ed., *Convegno internazionale: Amalfi nel medioevo*, (Salerno 1977), 179–92; see 186.

⁸¹ Idris, H.R., *La Berberie orientale sous les Zirides, X^e–XIII^e siècles*, 2 vols (Paris 1962), II.679ff.

⁸² “The old castle”—sometimes shorthand for an antique site: cf. El-Bekri's reporting of Casr-el-Roum—of the Romans—on the way to Barca.

⁸³ El-Bekri, *Description*, 64.

⁸⁴ *Libro tercero y segundo volumen de la primera parte de la descripción general de Africa*, (Granada 1593), fol 220v–221r.

⁸⁵ Lézine, A., *Mahdiya. Recherches d'archéologie islamique*, (Paris 1965), 44–5, plates 12, 28.

example, is now bare of decoration, although often quoted in Islamic architectural history for its “triumphal arch” gateway. Kairouan has something similar, with antique columns. Both must derive from Roman examples, of which there were plenty of sources of inspiration between Tunisia and Libya. The best survivor is at Leptis, where there are even the foundations of a late gateway that just might be Islamic.⁸⁶ Parts of Leptis were certainly not sand-covered in 1289, when El Abderi admired there “columns and sheets of marble it is impossible to describe.”⁸⁷ Presumably many of the antiquities from this went into the buildings of Sabra-Al-Mansuriyya, which is halfway between them.⁸⁸ Mahdiya’s fortifications may also have impressed Frederick II, who may have imitated at Capua both the form and the dimensions of the city gate. In this area there was also a succession of splendid palaces, which no doubt impressed the Europeans.⁸⁹

So did the Pisans and the Genoese perhaps also bring back marble from these raids, as they certainly did from others? Mahdiya is but 170km from Carthage, which is mentioned in the fourth line of the “Carmen,” so it is tempting to wonder whether the Pisans, alert to their Roman history, also took material from the ruins there, in useful imitation of the Roman sack of that city and, indeed, of the Arabic re-use of material there in the great mosque at Tunis.⁹⁰ Given the marble originally lavished on the mosque of Mahdiya (rebuilt in the 1960s), it may be wondered whether the Pisans stripped the mosque as well. It is not impossible that S. Sisto was indeed built with marble from Mahdiya, but also possible that these came from an earlier church. For Genoa also, such raids may have helped furnish the city with trophies, for “at

⁸⁶ Goodchild, R.G., & Ward Perkins, J.B., “The Roman and Byzantine defences of Lepcis Magna,” *PBSR* XXI, 1953, 42–73; see 51 & fig. 3. See 62 & fig. 7 for the foundations of a late gateway in the Severan Piazza, incorporating Roman columns laid horizontally.

⁸⁷ Motylinski, A de C., *Itinéraires entre Tripoli et l’Égypte, extraits des relations de voyage*, Algiers 1900, 11.

⁸⁸ Zbiss, S.M., “Mahdiya et Sabra-Mansouriya,” *Journal Asiatique* 1956, 79–83.

⁸⁹ Guichard, Pierre, “Du Qasr urbain à la Madina palatine,” in Patrick Boucheron & Jacques Chiffoleau, eds., *Le palais dans la ville: Espaces urbains et lieux de la puissance publique dans la méditerranée médiévale*, (Lyon 2004), 39–56; 40f., 44f. for al-Abbasiya and Raqqada.

⁹⁰ Ferchiou, N., “Rinceaux antiques réemployés dans la Grande Mosquée de Tunis: parenté de leur style avec celui de certains monuments de Carthage,” *Antiquités Africaines* 17 1981, 143–63. Amari, *Musulmani di Sicilia*, II.62ff. for Ibrahim ibn Ahmad who built (872ff.) a congregational mosque at Tunis, and at Kairouan added a cupola supported on 32 re-used columns.

the time of her commercial rise to European level, she founded her new cultural direction on the presence of ancient marble,” not only because of its symbolic connections with ancient Rome, but also because of its high price. They commemorated their attacks in Spain in 1146–8 by acquiring a bronze candelabrum with Arabic inscription put in the Cathedral, a set of bronze doors to the cloister of S. Giorgio, and an inscription on Porta Soprana⁹¹—one of many city gates to be adorned with statues or inscriptions in our period.⁹² The Crusaders had taken the large silver candelabrum from the Al-Aqsa Mosque in 1099.⁹³ A Greek stele from Apollonia was walled into the south tower of Porta Sant’Andrea (1155–8) at viewing height, and very possibly was brought back from the East as some symbol of Genoese reach and power.⁹⁴ A relief from the Mausoleum at Halicarnassus also reached Genoa, but it is not known when.⁹⁵ Like Pisa, Genoa (not a rich city in antique times) also brought back sarcophagi, and put two mediaeval “venatio” reliefs on the façade of the Duomo, clearly imitated from such sarcophagi, of which fragments also survive in the city.⁹⁶

The Leaning Tower at Pisa (1173ff.) is such a well-loved fixture of the European architectural scene⁹⁷ that few stop to consider its strangeness. For just like the façade of S. Marco, it displays large quantities of old columns and capitals, and all for ornament rather than structure—like the seven storeys of columns at Sabra. Perhaps it is thought “normal” because it chimes so well with the vogue for façades decorated with columns in tiers (Pisa, Lucca, Arezzo). However, these are just as strange as the Leaning Tower, without any discernible echo in earlier structures in Europe, except for theatres and nymphaea, or any purpose beyond extreme embellishment with as much old marble as possible,

⁹¹ Williams, John Bryan, “The making of a crusade: the Genoese anti-Muslim attacks in Spain 1146–1148,” *Jnl Med. History* 23.1 1997, 29–53; see 37ff., 40, 41–2.

⁹² *Dufour Bozzo, C., *La porta urbana nel medioevo. Porta Soprana di S. Andrea in Genova*, (Rome 1989), for a typology.

⁹³ Nègre, Arlette, ed., *Al-Dahabi: Les dynasties de l’Islam*, (Damascus 1979), 54–5.

⁹⁴ Dufour Bozzo, C., “Il reimpiego dei marmi antichi nei monumenti medievali e l’esordio della scultura architettonica del ‘Protoromanico’ a Genova,” *Bollettino d’Arte* 3 1979, 1–58; see 17, and 48–53; Dagnino, Anna, “Scultura e architettura. ‘Spolia’ e frammenti dall’antico,” *La scultura a Genova e in Liguria dalle origini al Cinquecento*, 1, (Genoa 1987), 131–138.

⁹⁵ Stampolides, N.C., “The Kos fragment and the Genoese slab from the Mausoleum,” in Dietz, S., & Papachristodoulou, I., eds., *Archaeology in the Dodecanese*, (Copenhagen 1988), 184–90.

⁹⁶ Di Fabio, C., *Scultura romanica a Genova*, (Genoa 1984), 127–9 & fig. 112.

⁹⁷ With its own fully illustrated website: http://torre.duomo.pisa.it/index_eng.html.

augmented by contemporary pieces as necessary. For both Pisa and Venice the phrase *embarras de richesses* springs to mind—cities which overload their monuments to flaunt a rare commodity, somewhat in the way the Romans treated water.

Cylindrical towers are common in Italy earlier than Pisa (e.g. around Ravenna), and might have been common in North Africa as in Provence.⁹⁸ Both the Sousse and Monastir ribats have them, but both are very plain (although the former has old columns and capitals in its portico. What might link Pisa to Sabra is excess in the use of marble (towers often use marble, as in Rome—but in moderation). But just how were the seven storeys of columns on the minaret at Sabra disposed? Was it as blind arcading, or as a free-standing peristyle over a flat entablature? Pisa is 55.86m high, and has eight storeys, of which the lowest is blind arcading. All the columns appear to be old, as carefully placed as possible. They are of different marbles and dimensions, as can be seen by comparing adjacent shafts or, especially, by sighting from base to base around the monument. Because of the problem of making the peristyles appear uniform, most of the capitals appear to be Romanesque—each one presumably tailored for a particular column. Many of the bases are probably antique (some refurbished), and height adjustments have been made to the square podia on which they stand so as best to line up adjacent columns. Naturally, the builders have concentrated on the capital level, which the eye goes to first, rather than the bases, which the human mind might assume were uniform. Similar tricks have been used to pseudo-line-up the massive columns of the nave and aisles of the Duomo itself. Given that there are no Italian belltowers remotely like that at Pisa, it is arguable but of course not provable that the famous Pisan raid on nearby Mahdiya got as far as the (semi? completely?) deserted Sabra and carried the columns back in order to build in Pisa a trophy which would “speak” of Pisan conquest by reproducing the Sabra tower, but all of marble, rather than just of brick decorated with marble, as implied by the El-Bekri quote. The idea is attractive because the old materials of the Leaning Tower, as well as the older reliefs on the lowest storey, complement the earlier columns,

⁹⁸ E.g. the pilastered octagon of the Tour Magne at Nîmes, with two stories of pilasters; the similar Trophée des Alpes at La Turbie; and the two demolished Roman circular towers at Aix-en-Provence, one on square base but circular for upper 2 storeys, lower with pilasters, upper with peristyle; the other all circular, with pilasters on upper 2 of the 3-storeyed structure; cf. Espérandieu, *Recueil*, I.76.

inscriptions and entablatures on the Duomo itself. The fact that the Leaning Tower is a century later than the raid does not invalidate the idea if we assume that time was needed to gather columns, and perhaps also that materials from North Africa had already been used to decorate the Duomo itself. Indeed it could well be, as Priester suggests, that Italian campanili are largely inspired by minarets.⁹⁹ Alternatively, perhaps Sabra and Pisa derive from their common typological ancestor, which is Roman funerary towers,¹⁰⁰ many of which were standing in Pisa's day. One such was the Tour d'Horloge at Aix-en-Provence, some 24m high (and with the top missing), which has a square base then two round peristyle stories. The (funerary) Monument of the Julii at Saint-Rémy has a peristyle of columns as its upper storey.¹⁰¹

The use of campanili as supports for displays of marble is common, but Pisa may have inspired other cities to display columns that way. At Chiaravalle Milanese, the late belltower (1329–40) is highly decorated, but the marble is probably not fresh-quarried. In Milan itself, the campanile to the church of S. Gottardo in Corte survives. Hexagonal with marble decorating the top three stories of arcades, it has small and narrow blind arcading decorating the next three stories as far as the roofline, and was described in the 14th century as “decorated from the top down with little marble columns, which is a great delight to see.”¹⁰²

Christians and Muslims in Jerusalem

Looting, trophies, triumphalism and religion come together during the Christian occupation and then the Moslem re-taking of Jerusalem. Muslim rulers had industriously gathered marble for the beautification

⁹⁹ Priester, Ann, “The Italian campanile: where did it come from?” in Colella, Renata L., et al., eds., *Pratum Romanum: Richard Krautheimer zum 100. Geburtstag*, (Wiesbaden 1997), 259–275.

¹⁰⁰ Gros, Pierre, *L'architecture romaine: du début du III^e siècle av. J.-C. à la fin du Haut-Empire*, 2 (*Maisons, palais, villas et tombeaux*), (Paris 2001), 399–422 for a selection of tholos tombs on podium; some have two storeys of colonnades, e.g. Faverolles (fig. 490), Julii at Glanum (fig. 487). Several have a solid base and colonnaded temple above: again like Pisa.

¹⁰¹ Hesberg, Henner von, *Monumenta: I sepolcri romani e la loro architettura*, (Darmstadt 1992), figs 79 & 75.

¹⁰² Galvino Fiamma (Dominican, 1283–c.1344) in a chapter breaking off from chronicle of events 1334/5 to write “De magnificentia edificorum.” Cf. Dean, Trevor, ed., *The towns of Italy in the later Middle Ages*, (Manchester 2000), 41–2.

of the Haram Al-Sharif, just as Justinian had once done for the Holy Sepulchre, and as the Christians were to do again after its destruction by Al-Hakim in 1009 (who also destroyed churches in Cairo, and reused their columns and capitals).¹⁰³ Perhaps the Franks were following Constantinople as well as the Moslems in their taste for marble, for when Odo of Deuil passed through Constantinople in 1147 he noted that the wealthy built marble-rich chapels just as the Moslems did rich mosques,¹⁰⁴ both sometimes sourced by looting.¹⁰⁵

The capture of Jerusalem by the Crusaders in 1099 occasioned the Christianisation of the monuments on the Haram. The Christians also beautified the city, perhaps using looted marble.¹⁰⁶ Ibn Khallican states that they rebuilt parts of the city with columns and sheets of marble, and beautiful fountains—so that one saw only “houses shining with the whiteness of marble,” decorated with columns the capitals of which resembled leafy trees.¹⁰⁷ In other words, the Christians had acquired marble Corinthian capitals, conceivably elaborate Byzantine ones, if our author is describing wind-blown acanthus.¹⁰⁸ But the matter is complicated by the new constructions the Christians added to the Haram, and which do not survive. The Al-Aqsa became a palace, and next to it Al-Isfahani in Saladin’s day observed the building of a vast church to the west of the qibla wall.¹⁰⁹ Perhaps it was the marble decoration from this that made up the Dikka in the post-reconquest Al-Aqsa mosque, which is almost completely made out of Crusader marble—surely intentional triumphalism.¹¹⁰ Unfortunately we get no details from Al-Isfahani, because he is expert at writing at length with-

¹⁰³ Evetts, *Churches and monasteries of Egypt*, 108: S. Theodore, “supported on marble columns. This church was wrecked and its columns were carried away, and it was turned into a mosque, in the caliphate of Al-Hakim.”

¹⁰⁴ Mathews, Thomas F. & Mathews, Annie-Christine, “Islamic-style mansions in Byzantine Cappadocia and the development of the inverted T-plan,” *JSAH* 56 1997, 294–315; see 300.

¹⁰⁵ Greenhalgh, *Islam & Marble*, 21ff. for details.

¹⁰⁶ *Gesta Tancredi Principis* in RIS V, 324–5: “Sub gemmis paries, sub geminis multa columna... Insignis fabricae decus are celebranda per orbem materias oculis solamen delitiosis... Inque vacans aurum efuriens laxavit egentum, Marmora denudans, et Christi membra reformans, Porro disposites, quae disponenda fuerunt, Post mirata sacri gemmas, aes, marmore templi...”

¹⁰⁷ *Recueil: Historiens Orientaux*, III, from his *Life of Saladin*, 421–2.

¹⁰⁸ Grabiner E. & Pressouyre, L., “Chapiteaux à feuilles d’acanthé fouettées par le vent,” *Acanthus Colloquium*, 357–382.

¹⁰⁹ Massé, *Conquête de la Syrie et de la Palestine*, 51.

¹¹⁰ Buschhausen, H., *Die südtürkische Bauplastik im Königreich Jerusalem*, (Vienna 1978), 13; Dome of the Rock: 184–6; al-Aqsa: 204–9; scattered around Jerusalem: 237–41.

out saying much, even about the refurbishing of the Al-Aqsa, except for the Ayyubid princes competing with each other to make it more splendid.¹¹¹

Under Saladin in the later 12th century¹¹² the monuments were de-Christianized and refurbished. This was part of an ambitious building program by his amirs as well as himself, which was military and religious but—in decided contrast to Crusader luxury—not of conspicuous private architecture.¹¹³ He rebuilt the walls of Jerusalem with large blocks, carrying materials himself as an example to his amirs.¹¹⁴ He built the walls of the Citadel, shipping marble blocks from cities on the Nile.¹¹⁵ Ibn Alatyr's account of October 1187 notes that after Friday prayers, Saladin ordered the Al-Aqsa mosque to be repaired "and to take all possible care in ornamenting, paving and decorating it with sculptures. Consequently, he had marble brought the like of which it was impossible to find, and gilded cubes in the Byzantine manner, and other necessary objects, all collected over many years."¹¹⁶ He also commanded that the mihrabs of Umar should be covered with marble,¹¹⁷ so where did he get the materials, after the Crusader occupation of the city? Part of the answer is that the Christians in Jerusalem had hoarded marble as perhaps a bankable equivalent to gold and silver—just as Frankish pilgrims had cut out bits of the Rock and taken them to Constantinople and thence to Sicily—as relics sold for

¹¹¹ Ibid., 56.

¹¹² Dajani-Shakeel. Hadia, "Some medieval accounts of Salah al-Din's recovery of Jerusalem (Al-Quds)," in Nashabe, Hisham, ed., *Studia Palaestina: Studies in honour of Constantine K. Zurrayk*, (Beirut 1988), online at <http://www.fordham.edu/halsall/med/salahdin.html>.

¹¹³ Korn, L., "Die Bauten Saladins. Kairo, Damaskus und Jerusalem in der Baupolitik des An-Nasir Salah ad-Din Yusuf ibn Ayyub," in Vermeulen, U., & De Smet, D., eds., *Egypt and Syria in the Fatimid, Ayyubid and Mamluk eras*, (Louvain 1995), II, 209–35; see tables 1–3 for a list of works in Cairo, Damascus and Jerusalem.

¹¹⁴ Al-Isfahani, *Conquête de la Syrie*, 371, 357.

¹¹⁵ *Al-Gharnati, Voyage*, 67, perhaps Abousir: "le sable en a recouvert la plus grande partie [de sorte] que l'on ne voit que les chapiteaux des colonnes de marbre qui étaient à l'intérieur des palais." In 1183 Ibn Jubair saw the city being demolished, and the stones taken to Cairo for the Citadel. Were the marble columns perhaps used to adorn the palaces therein?

¹¹⁶ *Recueil: Historiens Orientaux*, III, from the same chronicler, 705–6; these might have come from Constantinople: cf Golvin, Lucien, *Essai sur l'architecture religieuse musulmane*, 2 vols, (Paris 1970 & 1971), 94.

¹¹⁷ Broadhurst, R.J.C., ed., *Al-Maqrizi, A history of the Ayyubid Sultans of Egypt*, (Boston 1980) 85.

their weight in gold.¹¹⁸ They probably decorated their houses with it, as apparently did Jean d'İbelin (d.1236) his palace at Beirut.¹¹⁹ Hence when Saladin conquered Jerusalem, an agreement was made for the Christians to evacuate the city. The goods they could not carry they left behind, including "a large quantity of marble beyond compare, consisting of columns, plaques, and little cubes to make mosaics," and pieces of marble and wood "of every kind and in great abundance."¹²⁰ Following the surrender there was an influx of merchants who traded with the Muslim soldiers¹²¹—so perhaps this was another example of paying soldiers with what the Franks left behind.

Materials taken from the Christians apparently did not suffice for Saladin's purpose, so he sought marble elsewhere. As with apparent practice in Italy, where it was the commissioner or the builder, not the mason, who supplied the marble,¹²² so it is Saladin's army that appear to have gathered materials. He probably took marble from Ramla when he demolished the city in 1187 so it could not be used as a stronghold by the Crusaders. This is the more likely since Nasir-i Khusrau, visiting Ramla in 1047, had remarked that "there is much marble here, and most of the buildings and houses are made of sculpted marble." The city seems to have been a veritable centre of marble working, some at least from old columns, and he obviously watched the men at work, and admired the coloured marbles, as we have seen. In 1188, when Saladin demolished the fortress at Tortosa, he also demolished the church, "which was one of the largest in existence." Perhaps he got materials there as well, although a version of the church survives today. In July 1188 the Franks, having lost Jerusalem, ceded Lattakia.

¹¹⁸ *Al-İsfahani, Conquête de la Syrie*, 56.

¹¹⁹ Richard, Jean, "Un palais à Beyrouth au début du XIII^e siècle," in Gyselen, Rika, ed., *Sites et monuments disparus d'après les témoignages de voyageurs, Res Orientales* 8 1996, 139–41, described by Wildbrand of Oldenburg, in 1211: "Il a un pavement de marbre ingénieux... Les murs de la maison sont entièrement revêtus de plaques de marbre qui figurent avec une suprême ingéniosité, des tentures de couleur variée... Au milieu du palais se trouve une citerne constellée de marbre de diverses couleurs, dont les plaques de teinte différente sont si bien assemblées qu'on ne le sent pas en y passant le pouce; ce marbre montre une variété infinie de fleurs qui s'effeuillent et trompent l'oeil de ceux qui cherchent à les identifier"—all dismantled by the Mamluks when they occupied the evacuated city in 1291.

¹²⁰ *Recueil: Historiens Orientaux*, IV, 338; wood was probably as precious as marble in the area, and much more scarce.

¹²¹ Lyons, Malcolm C., & Jackson, D.E.P., *Saladin*, 274–5.

¹²² Connell, *Sculptors and stonemasons*, 109ff., 123; a 1395 contract for the façade of Mantua Cathedral has the marble supplied by Francesco Gonzaga himself.

In this city, perhaps because of the local quarries, the streets were paved in marble¹²³ and the buildings sumptuous.¹²⁴ Saladin stripped the marble façades from the houses (and perhaps marble from surviving antique porticoes, not to mention the marble-paved streets). The Moslems then carried off the marble, some of it to private houses in Syria, ruining most of her churches. The sack was not just looting, but deliberate destruction as well, for trophy material, also targeting sumptuous Christian churches rich in marble.¹²⁵

This was surely the case when in the same campaign Saladin demolished S. George at Lydda, which had been built by Constantine, although destroyed in 1010 and rebuilt by the Crusaders.¹²⁶ Indeed, if it was in the 1165/9 refurbishment that the Church of the Nativity at Bethlehem received marble veneer walls and polychrome floors, then perhaps supplies were readily available locally. But here it did not last: the Abbé Mariti relays that the walls were “formerly incrustated with white marble; but they were stripped of it by the sultan of Egypt, in order to ornament his palace at Grand Cairo. The pieces of iron by which the marble was fixed to the walls, are still to be seen.”¹²⁷

The Moslems had to retreat before Bohemond in 1197 but were soon back, and defeated the Crusaders in 1203 as they tried to take the town. So such triumphalism might be linked with an inscription by Malik Zahir Gazi, dated 1211, now at the entrance to the Great Mosque of Lattakia. This notes the foundation of the minaret ordered

¹²³ *El Lattakia*: Ibn Al-Aṭyṛ praises “the perfectly straight streets paved with slabs of marble.”

¹²⁴ Raoul de Caen, in *Gesta Tancri, Historiens occidentaux* III, 706: “Urbe ea sicut hodie ex ruinis ipsius deprehendere est, quondam nobilis, ecclesias, populum, opes, turre, palatia, theatra et huiusmodi quae habent aliae, inter alias habuit praeclara. Excipio Antiochiam: nulla per circuitum urbs tanta praeclara nobilitatis reservat insignia. Columnarum ordo multiplex, aquae per abrupta ductus, turrium ad astraeductio, effigies per compita excubantes, omnia, pretiosae are et materia, de praeterito praesenti.”

¹²⁵ Ibn Al-Aṭyṛ, *Chronicle of Kamel-Altevarykh*, III, 720. *Recueil: Historiens Orientaux*, I, Paris 1872, 361: “c’était une ville vaste, riche en édifices bien bâtis et de belles proportions... partout des demeures en pierres de taille, des portiques de marbre aux arcades solides”—which the emirs took to Syria. And outside the city was “une grande église, belle et ancienne, revêtue de porphyres, incrustée de marbres de différentes couleurs... Quand nos soldats envahirent la ville, ils enlevèrent ses marbres, dégradèrent ses beaux édifices.” Dussaud, René, *Topographie historique de la Syrie antique et médiévale*, (Paris 1927), 415 thinks this church might have been Deir El-Farous, which is mentioned by Ibn Batuta.

¹²⁶ Makrizi, *Histoire d’Égypte*, IX, 38, 55.

¹²⁷ Mariti, Abbé Giovanni, *Travels through Cyprus, Syria and Palestine, with a general history of the Levant*, 2 vols, London 1791; see II.416.

by this Gazi, “who has unified the word of the faith, has defeated the worshippers of the cross, and unfurled the standard of justice and beneficence...may God glorify his victory!”¹²⁸—so did the minaret contain old reliefs?

But as well as gathering marble for Jerusalem, Saladin apparently used looted marble to pay his troops. According to a Christian account by the Anonymous Edessan, Saladin also denuded churches of their ornaments,¹²⁹ “and ripped off the doors and marble tiles that covered the walls and floors. They removed all these to faraway countries.”¹³⁰ In other words, they sold their trophy-spolia, with the implication that there was more than was needed for the refurbishment of the Haram. Again, William of Tyre, writing of an undated recapture of Jerusalem by the Turk, says that they “subvertebant calices et vasa divinis obsequiis mancipata pedibus conculcantes, confringebant marmora”¹³¹—which could mean either that they defaced the marbles, or that they carried them away.

Saladin was far from the only Moslem to use spolia marble as triumphalist symbols. Although it is not known whether any recognisably Islamic items were displayed in Crusader structures, there are conspicuous examples of the converse. The doorway taken from Acre after its capture in 1291, now in Cairo as entrance to the Madrasa of Sultan Al-Nasir Qalaun (1295–1303) is the best known, and has been seen as a victory trophy brought from that much-disputed city,¹³² which then seems to have been abandoned.¹³³ But there are several other examples

¹²⁸ Wiet, Gaston, “Une inscription de Malik Zahir Gazi à Latakiah,” *BIFAO* 30 1931, 273–92; see 280.

¹²⁹ Piccirillo, Michele, & Alliata, Eugenio, *Umm Al-Rasas I: gli scavi del complesso di Santo Stefano*, (Jerusalem 1994), 290ff. for the catalogue of furnishings, in marble, but almost completely robbed out (it is not known when).

¹³⁰ Moosa, Matti, “The Crusades: An Eastern perspective, with emphasis on Syriac sources,” *Muslim World* 93.2 for April 2003, 249–89; see 279.

¹³¹ William of Tyre, *Hist. Rerum Transmarin*, PL CCI, Paris 1903. I.10, col 226.

¹³² Plagnieux, Philippe, “Le portail d’Acre transporté au Caire: sources et diffusion des modèles rayonnants en Terre sainte au milieu du XIII^e siècle,” *Bulletin Monumental* 164.1 2006, 61–6. Hunt, Lucy-Anne, “Churches of Old Cairo and mosques of Al-Qahira: a case of Christian-Muslim interchange,” in her *Byzantium, Eastern Christendom and Islam: art at the crossroads of the medieval mediterranean*, (London 1998), 319–42: “representative of the cultural subordination of Christians under Islam...sign to the local Christian communities of the absorption of Christian society into the Mamluk state.” Nasir-i Khusrau, *Travels*, 16, writing in 1047, notes that the Great Mosque at Acre had marble columns.

¹³³ Roehricht, Reinhold, ed., “Le pèlerinage du moine augustin Jacques de Vérone (1335),” *Revue de l’Orient Latin* III 1895, 155–302; see 299: “nunc autem est dirupta et

of Crusader marble in Mamluk monuments, such as marble from the fortress at Jaffa in Baybars' mosque at Husayniyya.¹³⁴ Most of these are small-scale, but Raby suggests that the old materials on the façade of the portico facing the courtyard in the mosque at Diyarbakir (ancient Amida: SE Turkey) may have come from the former cathedral complex: when Nasir-i Khusrau visited in 1046, it had inside "two hundred-odd stone columns, all of which are monolithic."¹³⁵ Hence for Raby the whole façade might be an "anti-Christian polemic... their large-scale reassembly as an adjunct of the mosque would have been construed as a deliberate affront." But this we might see as the exception that proves the rule, since Raby, *contra* Rogers, suggests that in Islam "there are only very few structures with ex professo evocations of the classical past, and that the intention behind these evocations differed widely." For this reason he likes neither the term "revival" nor "renaissance."¹³⁶ Whatever the implications, Allen points out that the structure is unusual in that "a complete set of antique stones was here reemployed in its proper order."¹³⁷ The deliberate re-use of another religion's symbols in a new and conspicuous context is much older than Islam, of course. We have already seen a marble (altar?) table sent in triumph from Toledo to Damascus. Indeed, it probably was from an altar, since there are several examples of offering tables being re-used in Moslem monuments in Damascus. Several were recut into mihrab-segments for the Maristan Nuri, and the Madrasa Al-Halawiya's main treasure was one described by Ibn Al-Adim as "of royal transparent marble, a stone of exquisite beauty: when a candle is placed under it, one sees its light shining through"—surely onyx or alabaster.¹³⁸ Ibn Shaddad notes that it came from a church in Afamiyah, and had on it writing in Greek. Ibn Al-Adim also reports on how the Muslims at Aleppo in 1123/4 demolished the apses of churches and constructed mihrabs in them, and also altered church portals. Such re-use of presumably choice

dejecta et sola habitatio serpenium et ferarum; nam illa civitas est sita super mare, habens portum pulcherrimum, et apparent ruine magnorum edificiorum, et adhuc sunt pulchre turres et palacia multa et multa magna edificia, sed a nullo habitantur...."

¹³⁴ Behrens-Abouseif, Doris, "European arts and crafts at the Mamluk court," *Muqarnas* 21 2004, pp. 45–54: see 45–7.

¹³⁵ Nasir-i Khusrau, *Travels*, 9.

¹³⁶ *Raby, Julian, Nur Al-Din, "The Qastal Al-Shu'aybiyya, and the 'classical revival'," *Muqarnas* 21 2004, 289–310: see 301–3, & 289.

¹³⁷ Allen, Terry, *A classical revival in Islamic architecture*, (Wiesbaden 1986), 37ff.

¹³⁸ Herzfeld, Ernst, "Damascus: studies in architecture," *Ars Islamica* IX 1942, 1–53; see 4, 10, & figs. 55–6.

marbles was, as Allen concludes, “not simply for their symbolic value, but also for their beauty.”¹³⁹

Nevertheless, most trophy-taking is against co-religionists. As we have seen, Abu Yusuf Ya’qub (d.1199) certainly founded a city of victory (Rabat) when he took his title of “Al-Mansur,” and it is likely that his completion of the minaret at Seville (which contains some 92 earlier capitals) is as much trophy-looting as his export of marble from Andalucía to the Qarawiyyin Mosque at Fez in Morocco,¹⁴⁰ where some fifty mosques reported had marble columns and fountains.¹⁴¹ Al-Zahir Baybars took the Bab Al-Iid from the Fatimid Palace at Cairo in 1263. The source says he “transferred the portal”—which suggests the lot, and not just the doors; he also took the iron plates and nails from the Qinnasrin gate at Aleppo (presumably they were decorated) and “took them to Damascus and Cairo for ‘some purpose.’”¹⁴² But greater detail reveals that Baybars was at the end of a chain: this same gate came from Raqqa to Aleppo, where it was adapted for use; the Abbasid Caliph Al-Mu’tasim then took it to Samarra in 837, and it was returned to Raqqa after the ruination of Samarra. When the Mongols took Aleppo, “this was the first thing they sacked”—hence Baybars’ interest in what was clearly a symbol.¹⁴³ It was much easier to appropriate a whole building. Murat II ordered a column in the Acheiropoietos in Thessaloniki to be carved recording his conquest of 1430: “The Sultan Murat captured Thessaloniki in 833.” Likewise, Al-Nasir Muhammad might have engraved his name on old column-shafts he used for the Iwan Al-Kabir (in its 1333 rebuild) in the Cairo Citadel, but the matter is complicated and uncertain.¹⁴⁴

¹³⁹ Allen, *A classical revival*, 18–19, 60.

¹⁴⁰ Rosser-Owen, Mariam, “Andalusi spolia in medieval Morocco: architectural politics, political architecture,” lecture at Royal Asiatic Society, 14 December 2006.

¹⁴¹ *Leo Africanus*, 129: “de fort belle structure, appuyez sus colonne de marbre, et un chacun avec sa belle fontaine élevée, de mesme pierre, et d’autre rare a nous incongneue, et toutes les colonnes sont par dessus leurs tribunes toutes ouvrees de mosaïque, et entaillées fort somptueusement.”

¹⁴² Taragan, Hanna, “Doors that open meanings: Baybars’ Red Mosque at Safed,” in Winter, Michael & Levanoni, Amalia, eds., *The Mamluks in Egyptian and Syrian politics and society*, (Leiden 2004), 3–20; see 12.

¹⁴³ Blochet, E., Kamal-ad-Din, “Histoire d’Alep,” *Revue de l’Orient Latin* VI 1898, 3–491 see 31–2.

¹⁴⁴ Rabbat, Nasser O., *The Citadel of Cairo. A new interpretation of royal Mamluk architecture*, (Leiden 1995), 249f.

Conclusion

Attitudes to looting changed through time, and what had once been mere loot was translated into splendour, and thence into scholarship, according to Cutler's overview of Italian responses to Byzantium.¹⁴⁵ Coastlines, harbours and sand-dunes also change over time, so that some sites were difficult to spoliare because of harbour or docking problems.¹⁴⁶ But the compensation for this was prominent buildings at many locations. We have no evidence that Christians took marble from active churches, but plenty that they sacked Muslim treasures and (probably) mosques. In the Islamic world, looting was constant because, as we shall see, it was routine to remove decorations and even sometimes whole portals from a predecessor's structure, and use them in new building—stone, marble, iron and wood. We might call this dynastic looting, by men who had perhaps taken to heart Thucydides' ruminations (I.1) that in the future Athens would (wrongly) be thought to have been greater than Sparta, because she was "adorned with magnificent temples and public edifices." She had also, conspicuously, built an "extensive choreography of ruins" into her Acropolis, connecting her own old marble with her own defeat.¹⁴⁷ To this extent, building is indeed the physical manifestation of power (or lack of it), and spoliation of recognizable trophies of the past appropriates the past for the admiration of future ages.

¹⁴⁵ Cutler, Anthony, "From loot to scholarship: changing modes in the Italian response to Byzantine artifacts, ca.1200–1750," *DOP* 49, Symposium on Byzantium & the Italians, 13th–15th centuries, 1995, 237–67; see 238. But now we have archaeology and museums, *nous avons changé tout cela*.

¹⁴⁶ Others had no adjacent harbour: cf. Spon, Jacob, & Wheler, George, *Voyage d'Italie, de Dalmatie, de Grèce et du Levant*, 3 vols, (Lyon 1678), 2. 268: for Aegina, where vessels "sont obligez de donner fonds entre Angistri et Dorousa, ou entre Moni et Aegina, comme a quelquefois fait toute l'armée Vénitienne." Is this why the prominent temple remained nearly intact?

¹⁴⁷ Ferrari, Gloria, "The Ancient Temple on the Acropolis at Athens," *AJA* 106.1 2002, 11–35; quote from 25.

CHAPTER FIVE

THE MARBLE HIT PARADE: MARBLE MEMBERS BY TYPE AND DESTINATION

Introduction

From the remains surviving today, and from what we know to have been used in monuments, it is clear that mediaeval commissioners/builders were often very selective in the marble they collected and prized from among the detritus of Rome. Some varieties of marble were particularly sought, and some architectural members were neglected. Indeed, large quantities of what might appear to us suitable materials were left alone, and (polishable) limestone seems to have been used only when in extreme need. What does survive today on ancient sites around the Mediterranean was left alone for one or several reasons, which I shall try to elucidate. The “Hit Parade” in the chapter’s title refers therefore to levels of popularity, and also evokes the hit squads which went searching for materials. This chapter attempts two tasks. The first part provides an overview via listings of typologies of what was popular, when, and for whom. The second part surveys the types of building in which materials were re-used, churches and mosques, campanili and minarets, and so on. It will become apparent that some types of objects moved into and out of fashion through time and place, that not every age prized the same materials, and that large quantities of marble remained untouched because the stones could not be made to fit into building plans at home. Transport was a big problem, and larger blocks and columns were generally left well alone. The task is made more difficult (as is any survey of mediaeval building) by the frequent neglect by modern authors of the actual materials, so that the reader cannot often know whether a column or capital is limestone or marble, in spite of otherwise careful cataloguing.¹

One difficulty to bear in mind, and already broached, is just how many times marble elements were used and re-used. Except in a few

¹ E.g. Latini, Massimo, “Sculture altomedievali inedite del Museo Nazionale del Palazzo di Venezia a Roma,” *RIASA* 57 2002, 113–52.

churches in Rome, which survive from Early Christian times, we are badly informed about earlier mediaeval structures in the West, and might wish to surmise that many of the materials to be seen in standing post-Millennium structures might simply have been re-used from earlier incarnations on the site. Attempts have been made to investigate this problem,² and archaeology can reveal earlier layers of marble re-use in Romanesque structures³ and earlier, giving us a good cross-section of the kinds of marbles spoliated.⁴ But for most standing monuments it is insoluble, and obviously contaminates any conclusions that might be made about post-Millennium re-use, unless backed by documentation that they are indeed being used for the first time. We might also suspect that marble was stockpiled in the Middle Ages as city life picked up, which complicates the matter further. It would also help round out our conspectus of marble if we knew more about mediaeval collections of those miniature, table-top versions of rare columns and veneers—namely treasures in *pietra dura*, which were prized well into the Baroque, not frequently mentioned in mediaeval times.⁵

Marble, polished and squared

In the Middle Ages the careful gradations of cost and hence value associated by the Roman market with different varieties of marble were partly forgotten, and their sophisticated connoisseurship (after the manner of fine wines) was replaced by a much simpler division. This was into porphyry (red & green, though “serpentine” occasionally appears), multicoloured marbles (“*marmi mischi*”), white marbles, alabasters (which could indicate onyx, alabaster or translucent marbles—sometimes also called “specular stone”), jasper (any number of stones), and black

² Bertelli, Gioia, “Trani e il suo territorio tra il VI e la metà dell’XI secolo,” in Fiorillo, R., & Peduto, P., eds., *III Congresso Nazionale di Archeologia Medievale*, Salerno, 2003, (Florence 2003), 418–27.

³ Casati, Maria Letizia, et al., “I marmi dell’Abbazia di San Caprasio in Aulla,” *Acta Apuana* IV–V 2005–2006, 35–44, for two earlier structures on the site, and re-use not only of antique marble, but also of 8th-century pieces.

⁴ Castellani, A., “Riutilizzo e rilavorazione dei marmi romani nell’abbazia altomedievale di S. Vincenzo al Volturno,” *II Congresso Nazionale di Archeologia Medievale*, (Florence 2000), 304–308: here were re-used (and sometimes reworked) columns, capitals, bases, vases, friezes, inscriptions, and tesserae for pavements.

⁵ Makrizi, *Histoire d’Egypte*, viii, 512–3: in 1173 Saladin prepared presents for Nur Al-Din which included rare and beautifully bound Korans, the usual jewels and gems, and objects (cups, plates, vases) in crystal, agate and malachite.

non-marbles (such as basalt or ophite). To indicate quality, a white marble would often be called “Parian,” but a veined one rarely “cipolino” or “proconnesian” except in Byzantium. Porphyry continued to be named, and appreciated partly because of its imperial associations, which were assimilated. One documented example involving porphyry (not a marble, of course), is Suger’s Eagle Vase for S. Denis.⁶ In other words, connoisseurship of the exact identity and value of different marbles, demonstrable in Antiquity, apparently passed much of the Middle Ages by, re-developing only from the Renaissance.⁷

But if mediaeval marble connoisseurship usually skipped the details, they were certainly able to seek out and usually to identify the material itself, and very clear that its major prized qualities were solidity and polish. In contrast most materials have matt finishes, and therefore absorb light rather than reflecting it. This is as true of stones such as limestone or sandstone as it is of dress, and the result is an apparent lack of depth, and also of subtlety, because materials with “depth” change according to the light—so that a church sparkling with marble can be compared to a bride dressed in finery.⁸ Here the finery would include special dyes, but also gold or silver thread—just as limestone sculpture would be painted in bright colours. Marble and mosaic stand out because they reflect a shimmering light, mosaic because of some of the specifically introduced characteristics of glass-sandwich tesserae and the happy impossibility of laying them dead-flat, and marble because of its granularity, veining and colour. In dull, often badly-lit mediaeval interiors, marble added sparkle and reflected light, just as gold and silver thread added sparkle to dress.⁹ The light flashing out of the stone also revealed profundity deep within it: “pictures” were frequently seen in the marble depths—and read especially into marble which was veined

⁶ By 1147, which bears the inscription INCLU GEMMIS LAPIS ISTE MERE(t)UR ET AURO/MARMORE ERAT SED IN HIS MARMORE CARIOR EST.

⁷ E.g. Belli, Francesco, *Catalogo della collezione di pietre usate dagli antichi per costruire ed adornare le loro fabbriche ora posseduta dal Conte Stefano Karolyi*, (Rome 1842): 501 samples with locations, usually churches but sometimes museums.

⁸ Ousterhout, Robert, “Reconstructing ninth-century Constantinople,” in Brubaker, Leslie, ed., *Byzantium in the ninth century: dead or alive?* (Aldershot 1998), 115–30; see 118 for Basil’s ekphrasis of his Nea Ekklesia built c.880: the church is “like a bride adorned with pearls and gold, with gleaming silver, with the variety of many-hued marble, with compositions of mosaic tesserae, and clothing of silken stuffs... The walls on either side [viz of the domes] are beautified with costly marbles of many hues.”

⁹ Marble can also yield different colouring under natural and artificial light: compare the two images on the DVD of the pulpit in SM in Cosmedin, Rome.

or flecked in various colours. Both Christians or Muslims admired columns or veneer in this way, and saw the pictures' origins in identical fashion. It is God who made the mountains of marble, so it is God who offers landscapes in the polished depths of the blocks wrested (though certainly against the moralistic diktats of Pliny) by miracles of industry and ingenuity from where He laid them down¹⁰—and apparently, in one case, a human figure on a column in a mosque.¹¹ A field of flowers was another God-given analogy,¹² inscriptions from the Koran a third.¹³ So popular was the motif of quartered veneer that it is imitated in floor mosaics.¹⁴ Marble could only be outclassed in sparkle by gold and silver, hence the large quantities of such gifts in the *Liber Pontificalis*,¹⁵ and with the added advantage that they were convertible as needed.¹⁶ So Theodore (d.613) upon the enlargement of his monastery, sent his archdeacon to Constantinople to buy silver vessels “for the existing ones were of marble,” by which he perhaps meant onyx.¹⁷

¹⁰ Grabar, André, “Le témoignage d’un hymne syriaque sur l’architecture de la cathédrale d’Edessa au VII^e et la symbolique de l’édifice chrétien,” *Cahiers Archéologiques* II 1947, 41–67; line 9 reads “Your marble is like the Image not made by hand (of Man), and your walls are harmoniously clothed”; 51–3 on the marble revêtement.

¹¹ *Al-Gharnati, Voyage*, 59, in the Mosque of Amr at Cairo: “une colonne de pierre avec une représentation humaine comme s’il y avait un moine [issu] des créatures d’Allah dans la colonne elle-même.” He also finds names on three red columns at Córdoba. There is a fascination with petrified images well into the 17th century: cf. *Julien, Pascal, *Marbres de carrières en palais*, (Manosque 2006), 31ff.

¹² Mango, Cyril, *Studies on Constantinople*, (Aldershot 1993), XVII.232–45: Mango, Cyril, & Parker, John, “A twelfth-century description of St Sophia,” [by Michael, deacon of Haghia Sophia], para 5: “all flowering stones separated from each other by little partitions... Thus has the stone, which is hard by nature, yielded, and, having emerged from the earth, it sparkles brilliantly and agreeably to the eyes.” A parallel are the stones found on Mt. Sinai, collected by pilgrims, and supposedly containing an image of the Burning Bush which remained even when the stone was split—in fact pseudo-fossils, the images being tentacle-like crystallisation in the cracks in the granite.

¹³ Al-Muqaddasi, *Best divisions*, 156 for talismanic marble sheets at Jerusalem: the veining in one reads “Muhammad is the Messenger of God,” the other “In the name of God, the Most benignant, the Merciful.”

¹⁴ Allen, Terry, *Five essays on Islamic art*, (Manchester MI 1988), fig. 12, for a floor in the Bardo Museum, Tunis.

¹⁵ Geertman, Herman A.A.P., *More veterum. Il Liber Pontificalis e gli edifici ecclesiastici di Roma nella tarda antichità e nell’alto medioevo*, (Groningen 1975) for a summary.

¹⁶ Gelichi, Sauro, & La Rocca, Cristina, eds., *Tesori: forme di accumulazione della ricchezza nell’alto Medioevo (secoli V–XI)*, (Rome 2004), for an overview.

¹⁷ *The Life of St. Theodore of Sykeon* at <http://www.fordham.edu/halsall/basis/theodore-sykeon.html>: from Baynes, Norman H., ed., *Three Byzantine saints: contemporary biographies of St. Daniel the Stylite, St. Theodore of Sykeon and St. John the Almsgiver*, (London 1948), chap 42.

Hence it is not difficult to see why coloured marbles were especially prized for building, because we should realise that marble (like paint and mosaic) could add colour to what were basically very drab buildings. If it would be going too far to say that the luxury of any mediaeval building was in its decoration not its structure (because most columns, floors and walls were of white or veined marble), coloured marble complemented sumptuous furnishings, especially textiles, which had similar characteristics, especially colour.¹⁸ Such a disparity between building and decoration is even clearer in many Islamic buildings, where the actual structures themselves would certainly have won few medals from any Roman building inspector who happened by, but where the decorations in marble, pearl and stone were viewed as a suit of clothes, to be moved elsewhere when needed. So if marbles in western churches were probably re-incarnated at least once, several such lives were likely for Islamic decorations.

In mediaeval accounts, marble blocks are often “squared” as well as “polished” or even “well polished” (“perpolitus”), which might even suggest recutting and repolishing. It is certain that the polishing of marble was common, even if the sawing could be less than perfect, especially for hard stones. Cosmatesque floors viewed under glancing light will reveal plenty of marble and porphyry roundels cut from column-stumps, often with the ridging an amateur gets when trying to saw a piece of wood plane.¹⁹ But this is the result of hand-working, and the same effect is seen in antique examples: these roundels are certainly polished, even if not sufficiently to eradicate all the ridges. It can be maintained that hand-sawn and hand-polished marble enhances subtleties that machine-cutting cannot match. Polishing could also include use of oil, to deepen the colouring, as was also done in Antiquity for encaustic walls, and still in the 15th century for the columns in the basilica at Bethlehem.²⁰ Difficulty in cutting and polishing is part of the attraction, which is one

¹⁸ Martiniani-Reber, Marielle, “Tentures et textiles des églises romaines au haut moyen âge d’après le Liber Pontificalis,” *MEFRMA* 111 1999.1, 289–305, and *passim*.

¹⁹ The rear of the north aisle of the Cappella Palatina in Palermo has such a roundel, clearly from a damaged column, for it is missing parts of its circumference. The roundels displayed on the main walls are perfect.

²⁰ Gnoli, *Marmora*, 6, note 1. He also maintains, 50–1, that so many epitaphs are re-used in such floors because the types of marble used were particularly suited to such work.

of the reasons for the continuing regard for porphyry,²¹ with the deep shine it can be given, as seen in Agnellus' report on the tomb of Archbishop Pertinax.²² Unfortunately, it can be difficult to assess mediaeval marble polishing, because often any evidence has been obliterated by later centuries: Herrmann remarks that "A fondness for classical polish and regularity had led to wholesale remodeling of Late Antique capitals in the eighteenth century," instancing SM Maggiore and SS. Giovanni e Paolo, where Late Antique capitals were destroyed²³ (although the church retains the old shafts). We are better placed with simple squared building blocks, which were always attractive precisely because they did not need trimming, thereby saving work when establishing corners and verticals.²⁴ Plenty of them are visible re-used in footings (and often in foundations) for churches and mosques, as in the east end of the cathedral of Vaison-la-Romaine, or S. Lorenzo, Verona.

Different sources of re-used materials

A broad overview suggests that building sources during the Middle Ages fall into three quite distinct categories, namely temples and public buildings, cityscapes civic and funerary, and villas. Their spoliation is dependent on availability through time, and on the weight of their members—although veneer decoration was susceptible to looting at any period. The diversity of re-use—and those many occasions when fine antiquities were not spoliated—stems partly from variations in population, but largely from the different needs of the Middle Ages, for whom the very notion of "public space" (and hence of any use for its monuments) seems to have receded. These categories are summarised

²¹ Butters, Suzanne B., *The triumph of Vulcan: sculptors' tools, porphyry, and the prince in ducal Florence*, (Florence 1996).

²² LP Ravenna, cap.113: "obiit; sepultusque est in ardua beati Apolenaris, mirae sepulturae. Ibi fuit lapis pirfreticus ante praedictam arcam, preciosissimus et valde lucidissimus in modum vitri." Connell, *Sculptors and stonemasons*, 146–8 for polishing techniques.

²³ Herrmann, J.J., *The Ionic capital in late antique Rome*, (Rome 1988), 1, note 2: "The rebuilding of S. Paolo on the old design after the damage of 1823 is the disastrous climax of this tradition." Better examples are S. Prassede (between 1594 and 1605) or S. Lorenzo in Piscibus (1672), amongst many many others, where they were chiselled back to the drums in order to receive stucco updates. Similar "conservation" has sometimes destroyed evidence of re-use in Cairo mosques.

²⁴ Adam, Jean Pierre, *Roman building: materials and techniques*, (London 1994), 2ff.

immediately below, and villas are dealt with here at some length, because their small-scale members mean that they are probably the source of the majority of materials transported any distance between c.600 and the Millennium. In many cases, of course, digging down on an inhabited site produced useable items, as Bishops Ealdred and then Eadmer found at S. Albans in the earlier 11thC, clearly knowing they had to dig deep.²⁵

Temples and public buildings

In the West, large temples and public buildings were dismantled early (in Rome, at the time of Constantine), or occasionally converted into churches. The technical resources required for dealing with large blocks is not in evidence after the spectacularly large (and fresh-quarried) cap for the Mausoleum of Theoderic at Ravenna, which weighs c.300 tons. In the East, such technology was employed in Constantinian and then in Justinianic constructions—but subsequent churches and other monuments are generally of modest size.

In Islam, there is little surviving physical evidence that such large monuments were spoliated. If we accept the tall monoliths in the Umayyad Mosque at Damascus as a partial exception (but they may well have already been within the temenos of the erstwhile temple), large columns were left alone in favour of easier-to-move smaller ones.

After the Millennium, the picture changes, for both the West (especially the Italian peninsula) and Islam (especially the Mamluks in Cairo) begin to employ large monoliths once more, the Christians in far greater quantities than the Muslims. It is impossible to say whether this is some kind of triumphalist race somehow bound up with the increased competition in matters cultural enhanced by the Crusades. But it is certainly the case that the mediaeval “industrial revolution” encompassed not just an improved knowledge of the means of mechanical production methods (such as watermills) but also an enhanced ability to transport and manipulate heavy weights—an ability easily tracked in the increasingly swift development of commercial shipping.

²⁵ Wright, Thomas, “On antiquarian excavations and researches in the Middle Ages,” *Archaeologia* 30 (1844) 438–457; see 441–5 citing Matthew Paris: digging down “profundiora terrae, ubi civitatis Verolamii apparuerunt vestigia, diligenter perscrutarentur, et antiquos tabulatus lapideos cum tegulis et columnis inveniret, quae ecclesiae fabricandae fuerunt necessaria sibi reservaret.”

Cityscapes civic and funerary

Street “furniture” in the classical city included paved and colonnaded streets, theatres and monumental fountains, well seen today at Aspendos, or the Asklepion at Pergamon. Outside the walls were monumental tombs. Marble colonnades of moderate height were attractive and easy to spoliage (as must have happened in Rome, as we have seen)—but the majority were either too tall (Apamea) or made of unattractive limestone (Jerash). Theatres were of interest, not only for occupation as housing (Arles) or as karavanserais (Perge), but because their scenae frons would often be decorated both with marble veneer and with columns of moderate height (which seem to me to offer the best explanation not only the strange appearance of the façade of S. Marco in Venice, but also to be likely sources of the majority of the material).²⁶

Funerary monuments made easy and convenient targets for spoliation, because they were both plentiful and generally small-scale, and easy to strip down to the bare structure. The veneer could be removed, and any columns were frequently only decorative, and correspondingly less tricky to dismantle. Funerary practices for the earlier mediaeval centuries did not encompass the continuing erection of similar monuments, so Roman ones were surplus to requirements. The exception is the growing veneration of saints and martyrs, their altars and chapels suitably furnished with marble columns, decoration and sarcophagi.²⁷ But it is notable how inconsistent is the take-up of sarcophagus burial for the non-sainted but rich populations of the Christian world. For there were enormous quantities of vessels conveniently available: on Thasos, for example, over one hundred have been collected at Limenas, to suit all tastes, many conveniently plain, or with only a shallow inscription. A similar collection is to be found in the Archaeological Museum at Thessaloniki. Nevertheless re-use is fragmentary (Pisa, Salerno) and, like columns, they are moved around and re-used only when their dimensions are conveniently small. In the Islamic world, saints and holy men are venerated, and rulers sometimes build sumptuously marbled funerary monuments for themselves (as in Cairo); but classical sarcophagi are generally eschewed and, when marble cenotaphs are made from plain slabs of old marble (Bursa), they are undecorated.

²⁶ dvd_venice.doc.

²⁷ Cf. the 1072/1100 wall painting of the Entombment at S. Angelo in Formis, where a strigillate vessel is delineated, but the artist gets the stryglis wrong.

Many of the forms of the classical world will be imitated and developed in the Middle Ages, but in miniature. Instead of full-scale temples,²⁸ we find reductions of them as altars, ciboria, and reliquaries, in marble or in manuscript, or frescoed on walls. Again, elements of Roman architecture—doorways, aedicules—reappear, often imitating or indeed re-using antique models. We also find ancient centralised structures including mausolea echoed in, for example, free-standing baptisteries and oratories within churches; were we to know more about earlier mediaeval structures (such as the Lateran Palace), then perhaps more “full-scale” antique imitation would be revealed.

Villas

Villas have several features which make them suitable for spoliation. They are very plentiful, surviving in their thousands, and they are accessible, dotting the coasts, river valleys and fertile plains all over the Roman Empire. They are often luxurious, as the few spectacular survivals (see below) demonstrate. They are standardised, so that spoliators would soon know what they were likely to find, and learn exactly where to find it—columns in the courtyard, veneers in the mains rooms and bathhouse, etc. Finally, and unlike pompous public monuments, the monoliths from which would have been much more difficult to dismount, move and re-erect, their architectural members are small-scale, so that—for example—their columns are easy to carry off.

The spoliation of villas could therefore account for the large number of remarkably short columns in several early mosques, such as Kairouan or Tunis. In Cairo, the ceiling of the largely 9th-century Al-Azhar Mosque is only 6.92m,²⁹ while the Mezquita in Córdoba uses a novel system of arcading to manage a lofty ceiling. For Córdoba, the argument revolves around the large numbers of villas of varying degrees of sophistication near the Guadalquivir, the fact that the great majority have been extensively robbed, and that the few remaining pearls

²⁸ Excepting such curiosities as the Tempietto di S Salvatore at the Fonti del Clitunno, and elements of some Asturian churches. Temple conversions are another matter, and several survive: Temple A at Largo Argentina, the Temple of Portunus/S. Maria de Secundicerio, S. Urbano alla Caffarella (all Rome); S. Maria Rotunda at Albano, the Temple of Minerva at Assisi, S. Ansano at Spoleto, the Duomo at Syracuse.

²⁹ The transept was raised 1.77m to give a clerestory: cf. Creswell, K.A.C., “The founding of Cairo,” *Colloque internationale sur l'histoire du Caire*, (Cairo 1972), 125–30: he estimates 98 columns in the prayerhall.

retain evidence of much marble use (such as El Munts),³⁰ some of it from imports. The same applies to the “funerary landscape” around Córdoba: Vaquerizo Gil’s excellent overview confirms just how rich this was—but many of his illustrations come from Italy, because elaborate and standing comparanda from Spain are in short supply.³¹ They have been dismantled for re-use, just as have so many of the revêtements from luxurious villas.³² Spain did not have her Pliny, and the great majority of villas there have been plundered, so the extent of extravagant marble use is unclear. El Ruedo, for example, is very rich in sculptural finds, and some rooms had marble revêtement.³³ But the triclinium has frescoed walls imitating marble, and the column elements re-used for the late 5thC final refurbishment, are of limestone; and the peristyle had limestone or arenario columns stuccoed to imitate marble. The spread of villas over the Guadalquivir and around Tarragona and Barcelona was intense,³⁴ and Ponsich has catalogued a very large number.³⁵ The east coast was also well supplied with villas: quantities of old marble appear in churches around Barcelona, such as the capitals and bases in Sant Miquel at Terrassa,³⁶ and their scale makes villas a likely source. How long did such villas survive, and what happened to them? Carr extrapolates tables from Ponsich’s lists which show that the majority were abandoned (at least according to pottery finds) by the end of the

³⁰ *Otiña Hermoso, Pedro, *La villa romana dels Munts (Altafulla): excavacions de Pedro Manuel Berges Soriano*, (Tarragona 2005), 181–6 for the marbles; there is no mention of columns so were they robbed out?

³¹ *Vaquerizo Gil, D., ed., *Funus cordubensium: costumbres funerarias en la Córdoba romana*, (Córdoba 2001); 120–3 & 135–8 & 198–219 for the funerary roads.

³² Vaquerizo Gil, “El uso del mármol,” for villas at Las Minas, Casa de Mitra (Cabra), Fuente Alamo, Camino de Mesta, Alcolea, La Canaleja, Casilla de la Lámpara, Cuesta de Espino, Huerta de la Mina, Fuente Tójar, and El Ruedo. He emphasizes (100) that marble was a luxury item, and scarce perhaps for economic reasons, availability, or distribution.

³³ *Vaquerizo Gil, Desiderio, & Noguera Celadrán, José Miguel, *La villa romana de El Ruedo (Almedinilla, Córdoba): decoración escultórica e interpretación*, (Murcia 1997), 40, 46–7, 93–4; computer reconstructions of its colonnades at 43, 54–5, 62–3, 86.

³⁴ Gorges, Jean-Gérard, *Les Villas hispano-romaines: inventaire et problématique archéologiques*, (Paris 1979); figs 15 & 16 for geographical spread of villas.

³⁵ Ponsich, Michel, *Implantation rurale antique sur le Bas-Guadalquivir. III: Bujalance, Montoro, Andujar*, (Madrid 1987).

³⁶ Mayer, Marcos, Alvarez, Aurelio, & Rodá, Isabel, “Los materiales lapideos reaprovechados en construcciones medievales en Cataluña: La ciudad de Barcelona y su entorno,” *Artistes, artisans et production artistique au Moyen Age II*, (Paris 1987), 529–58.

5th century, and very few new structures built in the following one.³⁷ The same process of “ruralisation” (the phrase is Remolà’s)³⁸ occurred around Tarragona, with few exceptions such as Centcelles. Transport to Córdoba in small ships up the Guadalquivir (even from the east coast of the peninsula) would have been easy.³⁹

North Africa was also an easy source of villa materials. In Tunisia, excavations have revealed the richness of the villas—marbled public rooms, porticoes, ornamental fountains⁴⁰—and further excavations outside Carthage and other known centres will no doubt uncover yet more. One might for example expect the Memmian Baths at Hippo Regius, some 20km from the quarries of giallo antico at Chemtou, to be well-provided with that marble, as indeed is the case. Another local quarry is Sidi Assem, but little of that stone is seen, presumably because it was little prized. Instead, the Baths also have large quantities of cipollino, which was the most common by a long way, with the veined white Cap de Garde a distant third. In other words, the commissioners had a taste for fine marble, and imported it in large quantities, sufficient apparently to veneer the upper walls as well as the dadoes of most rooms, for fixing pegs are still in evidence. But all the marble has gone, leaving mere fragments, plus a small dépôt of offcuts (including sheets laid out for cutting, and others in coloured marble) which demonstrate that the walls also had opus sectile designs.⁴¹ This surely means a concerted campaign of spoliation—and the city is some 50km from the sea, over high hills. In Syria, we also find a dearth of columns where they once existed. At marble-rich Antioch (or rather at

³⁷ Carr, Karen Eva, *Vandals to Visigoths: rural settlement patterns in early medieval Spain*, (Ann Arbor 2002); cf. figs 27–8 for distances from the river, and figs 29–30 for villa distances from the Via Augusta.

³⁸ Remolà, Josep-Anton, “Centcelles y las villae de Tarraco durante la antigüedad tardía,” in Arce, Javier, ed., *Centcelles: el monumento tardoromano, iconografía y arquitectura*, (Rome 2002), 97–112.

³⁹ Ponsich, *Implantation rurale antique sur le Bas-Guadalquivir*, 13 figs 3 & 16–18: the river was navigable to Seville for large sea-going ships, to Alcalà del Rio for medium-load vessels, and then for smaller vessels.

⁴⁰ Bullo, Silvia, & Ghedini, Francesca, *Amplissimae et atque ornatissimae domus: l’edilizia residenziale nelle città della Tunisia romana: schede*, (Rome 2003), 2.1; *Saggi* 237–9 for ornamental fountains; 71–104 for public rooms, with tables of types and sizes at 91–104; 2.2 Schede 109–67 and plan 111 for the 28 villas investigated at Carthage.

⁴¹ Broise, Henri, & Thèbert, Yvon, *Recherches archéologiques franco-tunisiennes à Bulla Regia, II, Les architectures, 1, Les Thermes Memmiens*, (Rome 1993), 124, 280, 287; 276ff. for frigidarium; 283ff. for the dépôt of offcuts.

the luxurious suburb of Daphne), the House of Trajan's Aqueduct was abandoned after the earthquake of 115 AD, so perhaps its columns went early; the House of the Calendar certainly had a colonnaded portico, but no columns survive any more than they do in the extensive House of the Porticoes.⁴²

Outside Andalucía, it seems likely that villa materials from areas such as Tarragona and Valladolid⁴³ furnished Christian constructions and, further north, would help explain the extensive re-use of marble in Cataluña.⁴⁴ But more research is needed. In the Italian peninsula, Pliny described villas in their hey-day;⁴⁵ maritime villas—so convenient for spoliation—have been catalogued;⁴⁶ and Pompeii and Herculaneum show how stunning their opus sectile floors must have been.⁴⁷ But the sparse decorative remains at most such sites demonstrate how much has been re-used. Nevertheless, such luxury was not always of interest to later centuries, as can be seen in the villas “Grotte di Catullo” and Desenzano near Sirmione, where fine architectural members were still standing while holes were punched in the mosaic floors for burial.⁴⁸ Nevertheless, a column and capital from “Grotte di Catullo” in via

⁴² Levi, Doro, *Antioch mosaic pavements*, 2 vols (Princeton 1947), 34, 36, 105ff. The initial statement now has an old-fashioned air about it: 1: “Of the four metropolis of the later Empire, Antioch is the only one which may be excavated almost in its entire area . . . In sharp contrast are Rome, Constantinople and Alexandria . . .” An opportunity missed, indeed!

⁴³ *Mañanes, Tomás, *La villa romana de Almenara-Puras (Valladolid)*, (Valladolid 1992), 47–8 & fig. 9 for a remaining column-shaft and base—so largely robbed out?

⁴⁴ *Al-Himyari*, citing Idrisi, 153: Tarragona “C’est la ville ou l’on trouve le plus de marbre travaillé [—he must mean re-used materials?]. Ses remparts sont en marbre noir et blanc, et l’on aurait peine à en trouver des pareils.”

⁴⁵ Förtsch, Reinhard, *Archäologischer Kommentar zu den Villenbriefen des jüngeren Plines*, (Mainz 1993); 85ff. for porticos, including luxury marble columns and incrustation; plates 12, 16–18 & 32–7 for antique representations of villas (often seaside) with colonnades.

⁴⁶ *Lafon, Xavier, *Villa maritima: recherches sur les villas littorales de l'Italie romaine, III^e siècle av. J.-C.-III^e siècle ap. J.-C.*, (Rome 2001): 331–473; 313–16 author suggests more research is needed on the monumentalisation of such villas.

⁴⁷ Guidobaldi, Federico, & Olevano, Fulvia, “Sectilia pavimenta dell’area vesuviana,” in *Pensabene, Patrizio, ed., *Marmi antichi II, cave e tecnica di lavorazione, provenienze e distribuzione*, (Rome 1998), 223–58; and *Bonanni, Alessandro, “Interraso marmore” (Plin NH 35.2): esempi della tecnica decorativa a intarsio in età romana,” in *ibid.*, 259–92.

⁴⁸ Bolla, Margherita, “Le necropoli delle ville romane di Desenzano e Sirmione,” in Brogiolo, Gian Pietro, ed., *La fine delle ville romane trasformazioni nelle campagne tra tarda antichità e alto medioevo*, (Mantua 1996), 51–70.

Antiche Mura at Sirmione indicates that spoliation began here well before the (suggested mid-4th century) necropolis.⁴⁹

North of the Pyrenees, a luxurious villa culture has also left plenty of remains, not least at Montmaurin and Valentine, which like other villas had wall veneers and columns (sometimes from imported marbles), luxurious baths, and mosaic floors. Some villas were large (Chiragan was outsized),⁵⁰ and Cabanot emphasizes just how many columns and capitals such complexes would need.⁵¹ Columns from Chiragan (the peristyle had a colonnade c.4.5m with architrave) survive in the church at Martres Tolosanes, and in the château; the paving was generally in Saint-Béat marble, and the wall veneers from Saint-Béat, Seix and Ariège. In luxury, this is an ensemble that Joulin compares reasonably with the Villa Adriana at Tivoli, and then sets in the context of other villas along the Garonne from its source via S. Bertrand de Comminges to Toulouse.⁵² Further north and west, in Aquitaine, the abbey at S. Sever in the Landes was a very rich site for marble (mostly from Saint-Béat), taken from the nearby gallo-roman villa at Augreilh.⁵³ Indeed, Spanish and French villas share so many characteristics that they are easy to consider together in the matter of marble. Thus Lea Stirling deals with late antique villas in southwest Gaul and their sculptural collections. In France Montmaurin, Chiragan, La-Garenne-de-Nérac are considered, and then Valdetorres de Jarama (near Madrid), the Casa de Mitra and the Casilla de la Lampara (both near Córdoba), and

⁴⁹ Roffia, Elisabetta, "Considerazioni sulle fasi piu tarde delle 'Grotte di Catullo' a Sirmione," in Brogiolo, *La fine delle ville romane*, 43–9.

⁵⁰ *Balmelle, Catherine, *Les demeures aristocratiques d'Aquitaine: société et culture de l'Antiquité tardive dans le Sud-Ouest de la Gaule*, (Bordeaux – Paris 2001); 206–228 for decoration with marble; 238–325 for mosaic; 442–54 for map and villa plans; 124 fig. 51: sizes of various villas; Chiragan outsized at 18000sqm, but two are over 7000sqm and five of around 5000sqm.

⁵¹ *Cabanot, Jean, "Chapiteaux de marbre antérieurs à l'époque romane en France. Pour une nouvelle orientation des recherches," *Capiteles corintios*, 71–86; see 76–7 for Sidonius App. Epist Paris 1970 II., 10, ll.16–17 for a portico built by Bishop Patiens at Lyon, on supports (surely columns) from Aquitaine.

⁵² Joulin, Léon, "Les établissements gallo-romains de la plaine de Martres-Tolosanes," (Paris 1901), *Mémoires présentés par divers savants à l'Académie des inscriptions et belles-lettres*, 1re série, tome XI, 1re partie, 58–60; 80–4 for interior fittings; cf. 264–91 for tables of materials retrieved from other villas: cornices, paving slabs and wall veneers, architectonic ornament and sculptures—but only fragments of columns have been retrieved.

⁵³ Cabanot, Jean, & Costedoat, Christine, "Recherches sur l'origine du marbre blanc employé pour les chapiteaux et les sarcophages de l'antiquité tardive et du haut moyen âge conservés dans la région Aquitaine," *Aquitania* 11, 1993, 189–232; see cats 150–215.

of course at El Ruedo, with statues which, by the time of the final renovation (5th century) were already carry-overs in re-use from earlier centuries—antiques.⁵⁴

Different types of re-used materials

Monolithic marble columns

Certainly the most popular of all re-usable elements,⁵⁵ columns are not the only possible method of support in Roman architecture—indeed, the use of concrete could produce much larger unsupported spans, with the material easily covered by fresco, stucco or marble veneer. It could be the apparent concern of Constantine's architects with the Roman past (seen in his Arch's derivation from that of Septimius Severus) which initiated a revival of column-and-architrave architecture. Thus Wohl suggests that, just as by his use of such materials "a message is sent about the past, the present and the future," so the use of columns was also revivalist, and counter to the contemporary fashion for huge vaulted concrete structures.⁵⁶ But what to do if large and airy structures are required, without using concrete? The answer is to employ large columns, larger than the standard of about two metres.⁵⁷

In Antiquity, monolithic columns (perhaps only the smaller ones finished on a lathe?) were laboriously polished. They were usually produced to standardized dimensions (although there are cases where adjustments were necessary),⁵⁸ and could therefore be stockpiled rather than pre-designated for a particular building.⁵⁹ They were the supreme

⁵⁴ *Stirling, Lea M., *The learned collector: mythological statuettes and classical taste in late antique Gaul*, (Ann Arbor 2004): see 37–49 for Montmaurin; 49–62 for Chiragan; 62–7 for La-Garenne-de-Nerac; and 178ff. for the Spanish villas.

⁵⁵ Marangoni, *Delle cose gentilesche*, 328–58. Pensabene, Patrizio, "Marmi e reimpiego nella Campania di età romana, *Acta Apuana* IV–V, 2005–2006, 9–28, calculates 486 shafts in the monuments he discusses in this piece: most are of granite, then cipollino, bigio and proconnesian: see 26–7 for a table.

⁵⁶ Wohl, Birgitta Lindros, "Constantine's use of spolia," in Fleischer, Jens, Lund, John, & Nielsen, Marjatta, eds., *Late Antiquity: art in context, Danish studies in classical archaeology, Acta Hyperborea* 8, (Copenhagen 2001), 85–116; see 106, 104.

⁵⁷ Diagram of the results in Deichmann, Friedrich Wilhelm, "Säule und Ordnung in der frühchristlichen Architektur," *Mitt.DAI Röm Abt.* LV 1940, 114–30, plate 2.

⁵⁸ Ward-Perkins, J.B., *The Severan buildings of Lepcis Magna: an architectural survey*, (London 1993), 13: the columns of both porticoes and temple were of varying height, so adjustments were needed.

⁵⁹ Wilson Jones, Mark, *Principles of Roman architecture*, (New Haven CT 2000), 155.

prize for mediaeval marble hunters, and suitable for gifting to churches.⁶⁰ In Antiquity several prestigious temples (such as Euromos, Claros and Mylasa) still bear inscriptions on the columns from those who financed the building. In the Middle Ages, it is old columns which often carry inscriptions,⁶¹ the costs in obtaining, transporting and erecting them not to be underestimated. A second spoliation was not unusual, as with the 5th-century episcopal basilica at Kourion (Cyprus), which had granite shafts but marble capitals and bases.⁶² Granite shafts were therefore acceptable, because they also took a good polish. However, the majority of ordinary stone shafts were left alone: antiquity with gloss was prized, but mere antiquity without glamour did not usually suffice for mediaeval builders. To take an Islamic example, all the mosques in Syria might have been furnished with columns conveniently taken from the (mainly Christian) “dead cities” such as Serjilla, or Deir Semaan, near Aleppo, dating 5th–8th century. Some were extensive monasteries, such as Kharrab Shams, serving S. Simeon on the hill above. Over 500 settlements in all, they boast a profusion of basilican buildings, monasteries, and often multiple churches per settlement (reckoned at about 1200 churches in all—one per 4.5sq.km). Yet the majority of these, which generally employ columns, still stand today, and sometimes with parts of the stone roof still on. This is because they were built with columns of the local (and very dour) limestone, the grain of which produced clumsy-looking capitals and, of course, unpolishable column-shafts that could only be hidden under stucco. Instead, architects preferred to use marble and to suffer the difficulties of having to accommodate different column heights and load bearing capacities.⁶³ This happened even when matching column-and-capital suites were surely nearby, as

⁶⁰ Calo Mariani, Maria Stella, “Sulle relazioni artistiche fra la Puglia e l’Oriente latino,” *Roberto il Guiscardo e il suo tempo: relazioni e comunicazioni nelle prime giornate normanno-sveve*, (Rome 1975), 35–66; see 60: abacus on the fourth left column in Barletta cathedral proclaims that in August 1153 a certain Muscatus gave 200 ducats for the erection of two columns.

⁶¹ *Il Veneto nel medioevo*, II, 156–7 figs 60–2 for inscribed shafts in S. Giorgio, Valpolicella, period of Liutprand; 202–3 figs 119–21, for Vicenza, SS Felice & Fortunato—perhaps 8th–9thC.

⁶² Megaw, A.H.S., “Byzantine architecture and decoration in Cyprus: Metropolitan or Provincial?” in *DOP* 28 1974, 57–88; see 60.

⁶³ Bierman, Irene A., “Art and architecture in the medieval period,” in Petry, Carl F., editor, *The Cambridge history of Egypt* (Cambridge 1998) vol 1: *Islamic Egypt 640–1517*, 357. Brenk, Beat, “Spolien und ihre Wirkung auf die Aesthetik der varietas. Zum Problem alternierender Kapiteltypen,” in Poeschke, *Antike Spolien*, 49–80: see fig. 11 for the diversities of columns and capitals in the Lateran Baptistery in Rome.

at Huarte, Apamea.⁶⁴ Similarly, the plentiful colonnades of Jerash were left alone, not being used even for the mosque,⁶⁵ and survive to this day. Far from being re-erected in the past century, many have always stood intact. In Burchhardt's day, many entablatures stood above their columns, and he counted 190 intact columns still standing there, and over 100 part-shafts.⁶⁶ Marble columns were available on the Syrian and North African coasts, and were taken to embellish structures such as the crypt of S. Nicola, Bari (consecrated 1089)—columns none of which matched, collected from various locations, and topped by a wide variety of capitals. Angels helped by transporting *la colonna miracolosa*, when the relics of the saint were translated. In the nave above, an attempt has been made to match marble colour for twinned columns, but disparities mean extra work in adjusting both capitals and bases, and some of the results are awkward, especially when the “twins” are of different height and girth.

Because of their accessibility to transport, few such desirable items survive today near the sea. This can be seen in Algeria, where at Cherchel architectural members have now gone⁶⁷ (leaving behind the unwanted marble statues), and at its port (Tipasa) the wall veneers have been taken, and the bare walls and poor-stone columns survive. Further inland, at Cuicul (Djemila, about 50km from the sea), plenty of structures remain, but the columns are limestone or sandstone, not marble. Much further inland, at Hippo Regius, there is plenty of marble still—in its villas, its Christian churches, and the forum with its splendid cannellated columns, capitals and bases.⁶⁸ Further still, 150km inland, to Timgad or Lambaesis, much of the urban fabric survives—but these cities were built of limestone and sandstone, not marble. If the Romans did not build in marble far inland, then neither Christians nor

⁶⁴ Canivet, P. & M.T., *Huarte: sanctuaire chrétien d'Apamène (IV^e–VI^e S)*, (Paris 1987), 91, 151. 172: but the marble ambo has gone.

⁶⁵ Walmsley, Alan, & Damgaard, Kristoffer, “The Umayyad congregational mosque of Jarash in Jordan and its relationship to early mosques,” *Antiquity* 79 2005, 362–78, fig. 2.

⁶⁶ Burckhardt, John L., *Travels in Arabia*, (London 1829), I, 255–6, 263–4.

⁶⁷ Cf. *Leo Africanus*, 253: “En la partie qui est à l'opposite de la mer, se void un corps de temple, grand, et haut, édifié jadis par les romains, dont iusques à présent, la partie de dedans (qui est faite de marbre) demeure encore en son entier.”

⁶⁸ Blas de Roblès, Jean-Marie, & Sintès, Claude, *Sites et monuments antiques de l'Algérie*, (Aix en Provence 2003): see 37–41, 50–72, 89–124, 195ff., 148–77 & 179–89 respectively. Marec, Erwan, *Monuments chrétiens d'Hippone, ville épiscopale de Saint Augustin*, (Paris 1958), 23–98 for the great basilica, and 183–212 for the five-nave church.

Muslims would usually cart marble there.⁶⁹ Where they did build in marble (using mainly local quarries), as Sardis and Aphrodisias,⁷⁰ also far inland, much of the urban fabric survives to this day, and in marble, because items were more easily available by the sea. Of course, many seaside marble-rich survivals were completely covered by drifting sand dunes and hence protected against unenergetic spoliation.⁷¹ Such was the theatre of Sabratha, which has a harbour protected by an offshore reef. The Moslems were naturally conversant with the idea that sand covered and uncovered antiquities.⁷² Hard figures are absent for such drifting, but some idea of the problem is illustrated by the Hippodrome at Tyre, which in 1967 took 200 labourers a year to clear of its ca. 2 million cubic metres of sand.⁷³ There were probably increasing problems in getting material out of Ephesus,⁷⁴ and certainly at Miletus.⁷⁵ Sand and concrete could also prevent spoliation. In the Severan Basilica at Leptis, “excavators found both Orders virtually complete, lying as they had fallen upon the sand dunes accumulated within the building.”

As well as large building-supporting columns, the Romans produced many smaller ones, for decorating structures such as the scenae frons

⁶⁹ Ward-Perkins, John B., & Goodchild, R.G., “The Christian antiquities of Tripolitania,” *Archaeologia* XCV 1953, 1–82; see 71: “The builders of the coastal churches were, as a rule, content to re-use the carved marbles of antiquity. In the interior, on the other hand, where there were few fine buildings to plunder, there was a vigorous school of late antique decorative sculpture”—and cites Breviglieri.

⁷⁰ Fellows, *Travels*, 251ff., including the temple-to-church conversion, and the building of civic inscriptions into the walls of the Byzantine city.

⁷¹ —although plenty remains even where there are good ancient harbours, as at Apollonia (where the Central Church is “remarkable for the completeness of its sixth-century marble fittings”) and 30km-distant El-Atrun: cf. *Christian monuments of Cyrenaica*, 35, 231ff.; and 250ff. for a catalogue. At El-Atrun, much has gone, perhaps via the 100-metre-distant harbour: there remain 9 column-bases, four “substantially complete” shafts, and 6 proconnesian capitals.

⁷² Makrizi, *Histoire d’Egypte*, viii, 533–4: in 1179 near the nilometre in Cairo the tomb and coffin of Joseph were uncovered—not seen since Moses had put them there.

⁷³ Joukowsky, Martha Sharp, ed., *The heritage of Tyre: essays on the history, archaeology, and preservation of Tyre*, (Dubuque, Iowa 1992), 33. The cemeteries had been similarly engulfed: Ward-Perkins, J.B., “The imported sarcophagi of Roman Tyre,” *Bulletin du Musée de Beyrouth* 22 1969, 109–45; see 109: “This extraordinary complex, virtually undisturbed since it was engulfed by drifting sands in late antiquity...”

⁷⁴ Lemerle, Paul, *L’Emirat d’Aydin. Byzance et l’Occident. Recherches sur la Geste d’Umur Pacha*, (Paris 1957), 28–9 & note 4; but 34: but Ephesus obviously an active trading centre in 14thC.

⁷⁵ Kleiner, Gerhard, *Die Ruinen von Milet*, (Berlin 1968), Abb. 4–5 for silting diagram. See 64 & Abb. 85: perhaps the Market Gate survived to grace the Pergamon Museum because it was well back from the original harbour, whereas the monumental Nymphaeum, much nearer the quay, lost most of its columns.

of smaller theatres, monumental nymphaea, or “palace façades” such as the Septizodium.⁷⁶ Plenty of these still survived in 16th-century Alexandria.⁷⁷ These would often be incorporated into small-scale rôles on the exteriors of churches (as at Pisa), with the capitals sometimes recut. Another prime destination was the cloister (the successor to the villa courtyard), where the four ambulatories were usually lit by arcades supported on a waist-high wall, meaning that columns of much less than 2m could be used, with capitals to match. An excellent example is the cloister to S. Sophia at Benevento, built by Abbot Giovanni (1141–77) from a large variety of marble columns. Most are so short that extra height for the arcade is gained by inserting large and finely sculpted marble impost blocks above the antique or refurbished capitals. The same happens in the mosque arcades at Kairouan.⁷⁸ Moissac (completed 1110) uses some old marble columns, but the capitals are limestone.

Quantities of marble columns were also popular in military architecture to strengthen walls and prevent sapping. Fortresses all over the Eastern Mediterranean (Caesarea, Kizkalesi-Korykos, Iasos, Side, Seljuk, Tlos) used them, and the technique may have been a Muslim invention: Al-Muqaddasi tells how his grandfather constructed for Ibn Tulun a solid harbour at Acre using them.⁷⁹ At Iasos, shafts are used as wall-ties, but in one case vertically as well, forming a spirited phallic symbol.

*Large monolithic marble columns*⁸⁰

The Middle Ages was fascinated by both the very big and the very small, and often attributed miraculous qualities to stones and minerals.⁸¹

⁷⁶ Lusnia, Susann S., “Urban planning and sculptural display in Severan Rome: reconstructing the Septizodium and its role in dynastic politics,” *AJA* 108.4 2004, 517–44.

⁷⁷ Blochet, E., “Relation du voyage en Orient de Carlier de Pinon (1579),” *Revue de l’Orient Latin* XII 1911, 327–421; see 378: at Alexandria “outside and inside the town are to be seen a great number of little columns, some richer and more decorated than others, and some very handsome house portals, most of which are half-ruined.” Braun & Hogenberg’s view of 1575 shows plenty of such ruins.

⁷⁸ Pavon Maldonado, Basilio, *España y Túnez: arte e arqueología islámica*, (Madrid 1996), 93–9, 103–12 for antique capitals reused in Ifriqiya; 112–19 for comparisons between Carthage and Kairouan.

⁷⁹ Al-Muqaddasi, *Best divisions*, 138.

⁸⁰ *Dvd_large_monolithic_columns.doc*.

⁸¹ Tarayre, Michel, “Miracula et mirabilia chez Vincent de Beauvais. Etudes de concepts (1),” *Le Moyen Age* 105 1999, 368–413; see 375 for extreme size either way;

Large columns (especially coloured ones) were often noticed.⁸² The Egyptians had produced large granite obelisks, enthusiastically imported by the Romans; and at Aksum (Ethiopia) enormous ones were still being carved in the 4th century, when Christianity arrived there. Unless it could be re-used in place (as in Michelangelo's refurbishing of Roman baths at SM degli Angeli), the weight of a large column was a deterrent, but the projected height of a building none at all, because arches or column-upon-column could reach up to bear the load (Córdoba). Similarly, the shed construction of Early Christian basilicas easily adds upper columns to form a gallery, and tall gallery-less naves on an entablature (such as SM in Trastevere, SM Maggiore) are the exception. Much shorter columns on arcades will then suffice for separating double aisles (Old S. Peter's, S. Giovanni in Laterano), and tall old shafts can be used with arcades to produce an airy effect, as for example in SM in Aracoeli, in Rome.

Always excepting the city of Rome (where all distances *intra muros* were small), the largest columns moved any distance in Europe were probably the granite ones for the Duomo and Baptistry at Pisa, and it might not be coincidental that this feat is actually documented. Other tall columns were certainly erected, such as the eight-metre granite shafts of the Crusader church at Tyre,⁸³ but these might have been local and, in any case, the city is on the sea, and imported a lot of sarcophagi.⁸⁴ Generally, anything over about three metres seems to have been avoided, the more so since the capitals to larger columns were also a substantial size. At a late 4th-century monastery at Faou-el-Qibli, in Upper Egypt, excavators have found 80 granite monoliths (there were 98 shafts reported in 1910), of which the tallest are 5.5m, but not a single capital⁸⁵—which suggests spoliators' preferences, perhaps as blocks for re-cutting. Floating the shafts down the Nile could not have been

396ff. for strange phenomena connected to minerals, such as sarcophagus stone, or magnetic stones—which appear frequently in the *Mirabilia* tradition.

⁸² Wilkinson, John, ed., *Jerusalem pilgrims before the Crusades*, rev. ed., (Warminster 2002), 171: Arculf, in Jerusalem c.680, notes that the rotunda of the Holy Sepulchre “rests on twelve columns of remarkable size.”

⁸³ Joukowsky, *The Heritage of Tyr*, 63, 76.

⁸⁴ Ward-Perkins, J.B., “The imported sarcophagi of Roman Tyre,” *Bulletin du Musée de Beyrouth* 22 1969, 109–45.

⁸⁵ Debono, Fernand, “La basilique et le monastère de St. Pacôme (Fouilles de l'Institut Pontifical d'Archéologie Chrétienne, à Faoui-el-Qibli, Haute-Egypte),” *BIFAO* 70 1971, 191–223; see 195–6. The column-shafts are illustrated in Massignon, Louis, “La cité des morts au Caire,” *BIFAO* 57 1958, 25–79, fig. 10.

difficult, and this would be the route for the capitals. In the church at Hippos-Sussitha (Qalat el-Hosn), once seat of a Bishop, a colonnade of old columns of various materials (unspecified in the account) lies where it fell (earthquake?), with at least six intact. But the site is on a hill (hence Qalat), its location is on the east side of Lake Tiberias, it is well over 100km north of Jerusalem, and the column-shafts are 4.7m high and 73cm in diameter—all good reasons not to try and move them.⁸⁶ The mosaic pavement is in good condition as well. At Leptis Magna, most of the columns and capitals (including the 6.8m Aswan granite monoliths) survived until the depredations of the French consul Claude Lemaire in 1686, no doubt because the Basilica's main hall had red granite and proconnesian columns 8.8m in height. One might conclude that shifting sands covered everything, but at some stage the marble veneer was stripped from the Great Nymphaeum and from the basilica, including the aisles, which had been surfaced floor to ceiling with coloured marbles. However, this spoliation may have been early, perhaps even before the basilica housed its church.⁸⁷ There is no real contradiction here: generally, the Middle Ages had to admire very large monoliths and leave them alone, because they were too heavy and difficult to shift—which is why the transport of the granite shafts at Pisa is recorded for our admiration. Somebody perhaps tried to move the colossal kouros still at Melanes (Naxos), and broke the right leg, but it is unlikely to have been during our period.

Other monoliths

Although admiring of them, the Middle Ages was none too interested in using the immense blocks often favoured by the Romans except for fortifications, and certainly not in transporting them large distances. Charouda may have imported megaliths for Agios Sotiras (Pelion), and the 11thC Agios Taxiarchis (Chios), the latter of which has incorporates dressed marble blocks of up to 3.2 metres in length. Similar but generally smaller marble blocks are found re-used in the church of Tourloti near Kitta.⁸⁸ Again, the little church of the Panaghia at

⁸⁶ Bagatti, B., *Antichi villaggi cristiani di Galilea*, (Jerusalem 1971), 64–74.

⁸⁷ Ward-Perkins, *Severan buildings of Leptis Magna*, 45: the temple columns of Aswan red granite averaged 7.08m, with capitals of proconnesian between 94–100cm high; see 57, 59, 76–7.

⁸⁸ Von Erffa, D., “Megalitischer Baudekmäler im maniotischen Charouda,” *Antike Welt* 20.2 1989, 21–30, Abb. 2–3, 11a–b.

Aigosthena, on the site of a much larger early Christian one, and close to some of the best Hellenistic fortifications in Greece, is built largely from dressed marble megaliths of nearly 2 metres, presumably brought from Megaris,⁸⁹ for the corners and the door jambs. Are they competing somehow with the Hellenistic past?

Debris shafts, column-stumps, etc.

By virtue of the manifold knocks of fate, especially earthquakes, larger quantities of fragmentary marble remains were available than intact members, and many of these were carved up into projectiles for man-gonels and then for gunpowder weapons.⁹⁰ The largest collection is probably that in the Castel Sant'Angelo in Rome. In the less prestigious churches it is common to find shafts made up of two or more pieces of disparate marble (or even a marble and granite mix). Another use is as Muslim tomb-markers, which did not require the column's full length to be effective,⁹¹ and these were only one of the classical forms thus converted,⁹² or indeed inverted.⁹³

Marble débris, and stumps of columns useless even for patching together into shafts, were universally popular for mosaic and opus sectile floors (hence roundels), and as the raw materials for an Islamic strip-veneer substitute for sheet marble. Whereas for flooring, column stumps were sliced salami-like into roundels—a veritable tondomania⁹⁴

⁸⁹ Travlos, J., *Bildlexikon zur Topographie des antiken Attika*, (Tuebingen 1988), figs 359–62.

⁹⁰ Greenhalgh, Michael, "Where have all the columns gone?" *ASMOSIA/BCH* forthcoming.

⁹¹ E.g. Sharon, Moshe, *Corpus inscriptionum Arabicarum Palaestinae*, (CIAP), (New York 1997), Askalon cats 6 & 11 for Muslim epitaphs on ancient marble columns, 1072–3 and 1097; 184: the whole shafts from the ancient site went into the Great Mosque.

⁹² Leake, William M., *Journal of a tour in Asia Minor*, (London 1824), 40: at Aksehir was the tomb of the saint Nusreddin Hoja (born 1208), "surrounded by an open colonnade supporting a roof; the columns have been taken from some ancient Greek building. The burying-ground is full of remains of Greek architecture converted into Turkish tomb-stones."

⁹³ Fellows, *Travels*, 193–4 at Mylasa: "a gravestone in a Turkish burial-ground, formed of a robed female figure of white marble, stuck head and shoulders downwards into the ground: the projecting feet had been broken off... a beautiful body of a child... with one arm over its breast, built into the wall of a house; the head and legs had been broken off."

⁹⁴ Pensabene, Patrizio, "Le rotae porfiretiche nel pavimento della Cappella palatina," *AISCOM IV* Ravenna 1997, 333–42.

to echo the late antique interest in rotæ and sarcophagi⁹⁵—under the Mamluks they were carefully sawn top-to-bottom to form, together with strips from other-coloured stumps, striped wall veneers of fascinating inventiveness, which complement the artful intricacy of wood and brass-work. It seems unsafe to use the popularity of such floors and walls as some kind of thermometer for lack of marble supplies, because once again we come up against the re-use and re-re-use dilemma. We have no decade-to-decade pedigree for the development of such floors from Antiquity through the Middle Ages, and even from what we know, until the Cosmati there is no large-to-small development which (as is certainly the case with Mamluk marble designs) might indicate a shortage of materials. Again, the 12th-century portable altars in the Treasury at Conques or in the British Museum (from Hildesheim), with porphyry, verde antico, or onyx sheets, highlight the precious nature of such stone—or why not make such altars entirely out of gems, silver and gilt? Conques also holds two sheets of white marble set with similar stones in equally small pieces, which reinforces their scarcity and hence high value. In S. Lorenzo fuori le Mura, in Rome, both the cosmatesque floors and the south pulpit display particularly large sheets of porphyry (with verde antico in the latter), which might support the idea that the usual miniaturisation is indeed due a shortage of large pieces—and hence that large pieces deserve conspicuous display. The same happens in the presbyterium of the Duomo at Salerno, and with the two pulpits in SM in Aracoeli, which are used almost as “coathangers” for fine marbles, sitting in the midst of a sea of cosmatesque floor, which includes a three-metre-plus porphyry roundel. The capitals in this church (including bases used as capitals) are especially elaborate.

Curiously, given the continuing popularity of marble floors in the Christian East and West, and probably in Islam (surviving examples are scarce until the Mamluks), there is little evidence of existing floors being lifted for relaying in the same pattern in a new location. After all, large quantities of such floors were aniconic, so distaste for pagan motifs (even if and when these were recognized) cannot be a reason. Instead, new mosaic floors were created, with new iconographies—but always using old marble (the verso of some tesserae can be identified as such). Why is it that cultures which prize the marble shafts which

⁹⁵ *Lucci, Maria Luisa, “Il porfido nell’antichità,” *Archeologia Classica* 16 1964, 226–71; see 252ff.

sit on marble floors, and appropriate the columns, would not take the floors as well, of which hundreds of thousands of square metres survive, and which were almost as easy to lift as they were to lay? Such neglect is heightened by the fact that the tesserae of wall and vault mosaics certainly were re-used. Islam was presented with such tesserae by the Byzantine Emperor; and these, like the ones the Moslems foraged for themselves, surely came from old Byzantine buildings. Out of these new structures were created, such as the Umayyad Mosque at Damascus. It is conceivable, but not provable, that the Dome of the Rock's mosaics did indeed come from stripping local churches, thereby providing overtones of triumph to echo the great old columns. In the West, we know of pilgrims taking marble home as an act of piety; but no references have survived to the same thing happening with the tesserae of mosaic floors, although mosaics were used to imitate other marble decoration.⁹⁶

Column drums

The Romans, like the Greeks before them, routinely constructed very tall columns from drums⁹⁷ (e.g. Temple of Mars Ultor, Temple of Saturn, both Rome), but these are very rarely re-used. Perhaps columns were naturally thought of as monolithic—which is the way Cyriacus draws the (drum-constructed) columns of the Parthenon. Evidently it was the very fact of being monolithic which was prized throughout the Middle Ages, in both Christianity and Islam. Thus the column drums of the Temple of Olympian Zeus in Athens lay where they collapsed, and no attempt was made to re-use them (or even perhaps to roll them down to Piraeus for cutting up into something else).⁹⁸ Christian churches at Olympia made use of smaller elements. Much fine marble (including column drums) still lie in the late walls in the Agora and the Kerameikos, which have never been fully obscured. Even smaller drums at Claros (near Ephesus, and today about 2km from the sea), still lie where an

⁹⁶ Michaelides, Dimitri, "Some aspects of marble imitation in mosaic," in Pensabene, P., ed., *Marmi Antichi: problemi d'impiego, di restauro e d'identificazione*, Studi Miscelanei 26, (Rome 1985), 155–170.

⁹⁷ Adam, *Roman building*, 115ff.

⁹⁸ Sulla had taken some to complete the Temple of Jupiter Optimus Maximus in Rome but, as the Athenian temple was never completed, he might simply have taken stockpiled drums.

earthquake collapsed them, and were certainly visible in the 1830s.⁹⁹ Drum-columns would be easy to transport and to erect, and would often make up 5m shafts and higher. They were occasionally used if available nearby. S. Marziano at Syracuse does indeed use cannellated Greek column drums from a classical building, as does S. Pietro at Alba Fucens (Abruzzo). But there are plenty of sites accessible to shipping where drummed columns survive today, proving a lack of interest. At Ephesus, for example, the cannellated drums of several of the columns of the Ionic Basilica Stoa (11 AD) survive. But closeby the monoliths of the Nymphaeum Traiani have had to be reconstructed with “concrete supports instead of the columns which are missing.”¹⁰⁰ Again, there is no evidence that such antique drum-columns came into popularity as supplies of monoliths diminished, although the 6th-century pulpit at S. Agata (Ravenna) seems to be hollowed out from a cannellated one. Instead, patched shafts (sometimes in more than one type of marble) became more common—that is, requiring extensive fitting, and offering much messier solutions. Given that the majority of new Romanesque architecture is built up in obvious sections, only the maniacal attachment to monoliths sketched above offers a reason for shunning such easily-transportable drums.

Marble column-drums were probably treated as blocks to be recut, to make large monolithic sculpted items, such as bishops’ thrones (Bari: but most mediaeval thrones are of panel construction), or the semi-circular marble ambo from Pomposa, already mentioned (12thC, now Louvre). So not for the Middle Ages the common-sense solution of Philibert de l’Orme’s “Architecture” of 1567, wherein he favours stone against marble as being better suited to the climate of France, and less expensive. Columns made up of drums were fine for his new French order, because of the difficulty of quarrying monolithic stone shafts of sufficient size from the stone available.¹⁰¹

⁹⁹ Texier, *Asie Mineure*, 359–60.

¹⁰⁰ Scherrer, Peter, ed., *Ephesus: the new guide*, (Istanbul 2000); see 81 & 117.

¹⁰¹ Knecht, Robert, *The rise and fall of Renaissance France*, rev. ed., (Oxford 2001), 221.

Capitals

Capitals go together structurally with columns, with the added bonus of decorative display.¹⁰² They are re-used even more frequently than columns, and sometimes in large quantities, as at Kairouan.¹⁰³ They are often reworked in various ways to make them fit,¹⁰⁴ for a column would look strange, and cannot stand securely without a capital (although there are instances where muqarnas¹⁰⁵ were used instead by Christians).¹⁰⁶ But if columns (without slicing up) can otherwise act only as grave-markers, capitals can also serve as altar supports, wellheads, or as holy-water stoups, as at Modena. At S. Pantaleone, Peediada, on Crete, indeed, four Corinthian capitals support an arch, with no column-shaft in sight.¹⁰⁷ At Amalfi a porphyry fountain-basin serves the same purpose and, in the SS Quattro Coronati in Rome, so does a highly decorated base.¹⁰⁸ At Leptis Magna, a metre-high Corinthian capital serves as the lectern in an ambo in the 6th-century basilica near the Severan Forum. At S. Sophia in Benevento, two huge Corinthian capitals support the altar table, in an arrangement which could be Lombard.

Repeated re-use was probably common, such as the cross-decorated 5th-century ones in Caesarea, already re-used in a 6th-century building, perhaps because they have Constantinopolitan sophistication.¹⁰⁹ Capitals were valuable even when damaged, and were frequently

¹⁰² Pensabene, Patrizio, "La decorazione architettonica, l'impiego de marmo e l'importazione di manufatti orientali a Roma, in Italia e in Africa (II–VI D. C.)," in Giardina, A., ed., *Società Romana e Impero Tardoantico, III: Le merci, gli insediamenti*, (Rome & Bari 1986), 285–429, for an overview.

¹⁰³ Harrazi, Noureddine, *Chapiteaux de la grande mosquée de Kairouan*, 2 vols (Tunis 1982); see vol II for 500 capitals, located by number on a plan of the mosque.

¹⁰⁴ *Basso, Rosa, "I capitelli romani di San Miniato al Monte: un caso di reimpiego a Firenze," *Archeologia classica*, 44 1992, 147–184; see 172–3 for examples.

¹⁰⁵ Stalactitic vaulting: cf. <http://www.tamabi.ac.jp/idd/shiro/muqarnas/>.

¹⁰⁶ Eastmond, Antony, *Art and identity in thirteenth-century Byzantium: Hagia Sophia and the empire of Trebizond*, (Burlington, VT 2004); see 79 figs 50–1 for the west porch at Hagia Sophia, to accommodate the different dimensions of the Early Christian capitals.

¹⁰⁷ Gerola, Giuseppe, *Monumenti veneti nell'isola di Creta*, II, (Venice 1908), plate 2.

¹⁰⁸ The four saints were martyred under Diocletian for (in one version) refusing to sculpt a statue of Aesculapius in porphyry; perhaps inappropriately, they are entombed in a porphyry vessel in the crypt of their church.

¹⁰⁹ Roussin, Lucille A., "A group of early Christian capitals from the Temple platform," in Vann, Robert Lindley, ed., *Caesarea papers*, (Ann Arbor 1992), 173–6; 14 surviving, 9 with crosses carved into them.

freshened up and sometimes completely re-cut¹¹⁰—near-impossible with a seriously damaged column-shaft. The more decorative the capital, the more attractive—so Corinthian is much more popular than Ionic, and Doric hardly at all.¹¹¹ Needless to say, if matching suites of shafts were rare, so then were capitals which matched shafts in size let alone each other in decorative motifs. This clearly did not matter, for people preferred high-quality “show pieces” to regularity and uniformity.¹¹² This is illustrated in the portico of the Alaeddin Mosque at Ankara, where the shafts are so thick that an Ionic capital is used upside-down, producing a strange—to us—effect. Large quantities of new capitals were also made during the Middle Ages, those in Islamic Spain probably fresh-quarried (see the chapter on Earlier Islam). The sparkling inventiveness of caliphal capitals in Spain highlights the crudity of many Western creations which imitate the antique, especially before the Millennium, and makes one wonder whether the very existence of quantities of old marble was sometimes a drag on innovation. Not in the Maghreb, apparently, where it has been affirmed that they were re-used two hundred years later for political reasons¹¹³—which, if true, suggests the architects could recognize such items, and make the appropriate connections. For in Christian Europe capitals were very probably cut from what must have been abundant supplies of small old blocks. This was yet another disincentive to re-use large columns, because small capitals required only moderate work, which generally shows clearly in the end result (at least of those which have been recognized as newly cut). Because capitals were often showcases for sculpture, they could also provide a convenient surface for inscriptions.¹¹⁴ And so indeed could

¹¹⁰ *Rilavorazione*, 1ff. for overview; especially 11ff.; *ibid.* cat. 21 for crypt of San Pellegriano, Trani; cat. 3–5 for Osimo, cathedral crypt, recut as early as the 8th–9thC; and cat. 37 for 11 nave capitals at Cefalù, 2ndC reworked second quarter of 12thC, and between 75cm and 90cm tall.

¹¹¹ Hansen, *Eloquence of appropriation*, 123.

¹¹² Brandenburg, Hugo, *Ancient churches of Rome: from the fourth to the seventh century*, (Turnhout 2005), 254.

¹¹³ Cressier, Patrice, & Cantero Sosa, Magdalena, “Diffusion et remploi des chapiteaux omeyyades après la chute du califat de Cordoue. Politique architecturale et architecture politique,” in *L'Afrique du Nord antique et médiévale. Productions et exportations africaines. Actualités archéologiques*, (Paris 1994), 159–187; see 164ff.

¹¹⁴ Sharon, *Corpus inscriptionum Arabicarum Palaestinae*, cat. 2: construction text on a Byzantine capital at Abu Ghush, c.767, recording the building of a mosque.

columns: thus in 1362 Margherita Boccamazzi dedicated a column in the Lateran as a gift to the Saviour.¹¹⁵

Just as there were fashions in capitals in Antiquity (with Corinthian more popular than Doric or Ionic), so it was with re-usable items, for particular types seem to have been prized and sought out. This could be the explanation for the vegetation-decorated capitals with a cross, which are found at S. Marco Venice, S. Nicola Bari, and in the crypt at Otranto with similar ones in Bursa and in the church on the Athena Terrace at Pergamon. Similar comparanda are possible for capitals with lotus-leaf friezes, and capitals with chamfered corners.¹¹⁶

Column-bases

The third element in the columnar furniture is the base which, like the capital, has a structural function. Capitals would often serve as column bases, not because the latter were necessarily unavailable, but perhaps because capitals were more decorative, as in the work at Magdeburg.¹¹⁷ For when bases were decorative they were indeed re-used, as in the Great Mosque at Kairouan,¹¹⁸ or in SM in Trastevere, Rome. Yet there are bases—such as the large acanthus-calyx bases at the entrance to the Forum at Apamea¹¹⁹—which do indeed look somewhat like capitals, so might explain such kinds of “misuse.” Being more decorative, they made a building look more luxurious, as can be seen in plenty of churches, and indeed in manuscript illuminations such as Pietro da Eboli’s *Liber ad honorem Augusti* (Berne Municipal Library, 1196). This shows William II with an Arabic doctor and astrologer, with the palace supported on spiral columns, and with upturned capitals as bases. Another possibility is that many builders (and their patrons) either did not know the “syntax” of classical architecture, or were not interested in it—yet the

¹¹⁵ Lanciani, *Wanderings*, 194: removed by Pius V in 1564, and now in the courtyard of the convent of SS Domenico e Sisto.

¹¹⁶ Dennert, Martin, *Mittelbyzantinische Kapitelle. Studien zur Typologie und Chronologie*, (Bonn 1997), cats 90–2, 97–8 and 103; lotus-leaf friezes: Chora in Istanbul (cat. 173), S. Marco (178, 180, 181), Palazzo della Ragione at Pomposa (179); capitals with chamfered corners: S. Marco has 18 of these (cat. 290), for which there are comparanda at S George in Mangana (294, 295), and the church of Dionysios Areopagitia in Athens (299).

¹¹⁷ Meckseper, Cord, “Magdeburg und die Antike—zur Spolienverwendung im Magdeburger Dom,” *Otto der Grosse*, I.367–80.

¹¹⁸ Ewert, Christian, & Wisshak, Jens-Peter, *Forschungen zur almohadischen Moschee, Lieferung I: Vorstufen*, (Mainz 1981), plate 64.

¹¹⁹ Balty, Jean Ch., *Guide d'Apamée*, (Brussels 1981), figs 68–70.

mediaeval landscape was peppered with the remains of antique buildings, of which the column-bases—for obvious reasons—survived the best. One problem, however, concerned the clamping which held the column to the base and the base to the podium. We may suspect that many bases were destroyed during efforts to remove the column-shaft intact, and that it was sometimes calculated that the work involved in separating base from podium was not worth the trouble. Frequently, the bases are left behind, and their columns taken, as at Hierapolis, where Hamilton saw the remains of “a magnificent Doric colonnade 200 paces long” which, “with the bases of the columns still in situ, connect the north-west gate, with a triumphal arch.”¹²⁰

Bases, like capitals, were used when available, but not generally “correctly,” probably because of the difficulties involved in positioning disparate shafts as load-bearing elements. A detailed examination of any mediaeval building re-using old materials soon reveals the manifold difficulties of making disparate shafts, capitals and bases look as if they belong together and form some kind of suite. Structural despair perhaps affected what got used as bases, because almost anything larger than the column diameter could act as a substitute, and help spread the load. This is why we frequently find capitals upended and used as bases, as for example in the portico to S. Benedetto at Salerno, or that of the Resadiye Mosque at Silifke, Turkey (1328). Bases may also be employed to heighten under-achieving columns. In the case of the 8th-century S. Sophia at Benevento, the problem was the great but variable height (over five metres) of the columns, which entailed using recut capitals as bases to support their great girth. Occasionally, bases do service as capitals, such as in the narthex of S. Zeno at Pisa (where a capital is also used as a base), or in the old Duomo of Amalfi (now the Diocesan Museum), which is also rich in old columns, capitals, pulpits and sarcophagi from the earlier church.

Taking the three shaft-capital-base elements together explains the general mediaeval preference for arches rather than flat entablatures, because they offer greater scope for visual trickery (as at Pisa). This has nothing to do with *romanitas*, but merely with practicalities. An entablature should by definition be flat all along (there are exceptions: cf. S. Lorenzo fuori le Mura in Rome), which severely restricts the architect's

¹²⁰ Hamilton, William J., *Researches in Asia Minor, Pontus and Armenia*, (London 1842), I.521.

leeway in making columns and bases fit underneath it. At S. Martino ai Monti (Rome), the majestic colonnade uses lofty columns—but not lofty enough, for bases of varying heights have been confected to ensure that everything looks uniform at the capital end.¹²¹ Hence messy solutions often ensued: the late-fourth-century S. Angelo at Perugia supports its rotunda on large and diverse monoliths—so diverse that the bases of the shorter ones are elevated on blocks nearly a metre in height. In the 5th-century S. Salvatore at Spoleto, the difficulties in matching up columns, entablatures and impost blocks are plain to see.¹²² This underlines the luxury of Rome, where architects using old materials at the same period for the Lateran Baptistery (440ff.?), S. Stefano Rotondo (470s?), and S. Costanza (c.350), had more consonant shafts, capitals and bases from which to choose. One way of gaining height is seen with the re-used elements at Terracina: the interior uses arcades, but the portico a flat entablature, which itself supports arches.

Cornices and entablatures

Entablature blocks and friezes are often the missing elements¹²³ giving the lie to there being any thoroughgoing attempt to resurrect Roman architecture in the mediaeval West—which enthusiastically collected editions of Vitruvius. They are sometimes employed as jambs and lintels for relatively small doors¹²⁴ (not colonnades) and even, upended, as a pillar doing duty for a column in the church at Bazzano (Abruzzo). They decorate the exterior of the House of the Crescenzi, as well as a 12th-century portico in the Via Banco di S. Spirito, and a plainer one in Via Capo di Ferro (all Rome). Their employment in the Baptistery to S. Giovanni in Laterano,¹²⁵ and in various churches,¹²⁶ notably SM

¹²¹ In S. Sepolcro, Bologna, a decorated square pilaster is used as a tall base for an old shaft too short for its task.

¹²² When Faroaldo sacked Ravenna/Classe in 580–1, as Paul the Deacon records, did he perhaps carry back marble to Spoleto?

¹²³ dvd_cornices_entablatures_and_sarcophagi.doc.

¹²⁴ Such as the similar lintels over the entrances to Duomo and adjacent Episcopato at Sessa Aurunca, or the lintels over the W. door of S. Vincenzo at Furlo (Marche).

¹²⁵ *Romano, Marco, “Materiali di spoglio nel Battistero di San Giovanni in Laterano: un riesame e nuove considerazioni,” *Boll d'Arte* 70 1991, 31–70; see 43ff.

¹²⁶ Espérandieu, *Recueil*, III.42 cat. 1801 figured entablature block now Musée de Lyon, from Beaujeu (Rhône)—but stone not marble.

in Trastevere, is rare.¹²⁷ Sometimes they were cut down to make something completely different.¹²⁸ Such cold-shouldering of cornices and entablatures (and hence of trabeate construction) might at first sight appear strange, because they offered to people who evidently prized richly decorated bases some of the best examples of inventive frieze decoration from the ancient world. By their very nature they were available in runs long enough to satisfy almost any building project, without necessarily being any heavier than the columns they supported, and which *were* re-used. Certainly lack of re-use might sometimes be explained by imperfections: such blocks, with further to fall than columns, might perhaps be more damaged. But the sparsity of columns of identical height (which would allow entablature blocks to fit visually and actually their new location) is a more likely explanation, perhaps bolstered by the greater strength offered by arcading. In some cases, perhaps, entablature blocks were too heavy to move far.

But they made good lintels (as in the S transept of the Duomo at Pisa), and even got chopped up to form pilaster-like capitals, as on the façade of S. Zeno at Pisa. Indeed an indication of the disinclination to erect colonnades, and perhaps also of the scarcity of intact members, is their much more frequent use as door lintels, such as for the main door to the Duomo at Salerno (consecrated 1084), “modernised with an inscription.” In the doorway to the S. Zeno Chapel in S. Prassede, Rome (Paschal I, 817–24), the interlace on the lower face (that is, the ancient block has been updated) is compromised by the clumsy handiwork involved in recarving the left side. This forms a stark comparison with Hadrian I’s re-used entablature in the nave, patched though this is. No such problem is apparent in the Lateran Baptistery (Sixtus III, 440ff.?), where the entablature blocks are angle-cut to encompass the octagon. But the best place to study the problems involved in integrating entablature blocks into a convincing colonnade is the Pelagian basilica at S. Lorenzo fuori le Mura (Pelagius II 579–90, rebuilt Honorius II 1061–72). This is elevated over tall monoliths, and the viewer can inspect faces, undersides and capitals at almost eye-level, reading Ciranna’s

¹²⁷ The blocks used here are chosen with great care to fit—more carefully, than those in S. Lorenzo fuori le Mura, which have not been re-cut.

¹²⁸ Mayer, Marcos, Alvarez, Aurelio, & Rodá, Isabel, “Los materiales lapideos reaprovechados en construcciones medievales en Cataluña. La ciudad de Barcelona y su entorno,” *Artistes, artisans et production artistique au Moyen Age II*, (Paris 1987), 529–58; see fig. 9 Barcelona, Museo de la Catedral: roman architrave reworked into a quadrilobe baptismal font; presumably for the early romanesque cathedral.

excellent account of the process.¹²⁹ In the Constantinian basilica of S. Peter's, the various dimensions of the columns and capitals used (shafts varied by over 30cm, and in similar proportions for their girths), also occasioned much juggling to make everything fit the flat entablatures of the nave.¹³⁰

Islam also found entablatures attractive for decorating buildings, such as the Maristan of Nur Al-Din in Damascus (see below). But the best example is the main gate of the casbah at Le Kef (Tunisia), where the round-headed gateway displays a slice of antique entablature, is then itself surmounted by three antique corinthian pilaster capitals, not identical—and that again surmounted by the chevron elements of an antique pediment.¹³¹ The most modern re-use I know is the roundabout into Sultanhisar where, in the 1980s, two disparate column-stumps supported a large entablature block, with a clock on top.

Complete structural or decorative units

By this I mean elements such as complete door- or windowframes, the Roman equivalent to the assemble-it-yourself boxed furniture of today, and likewise often available in standard sizes. I include the category because, curiously, such units are rarely taken over. Nearly all the buildings of Early Christian Rome use old marble, as we have seen; such members are moved some distance. But they are incorporated into new designs, and there are no known examples in Rome of a classical building completed by visible older elements, beyond the sculpture on the Temple of Apollo Sosianus, and the columns taken by Sulla from the Olimpieion in Athens for his renovation of the Temple of Jupiter Optimus Maximus¹³²—and in any case we do not know how these columns (which were drums, not monoliths) were re-used. Indeed, the old chestnut about Roman triumphal arches supplying the inspiration for Romanesque façades is not convincing precisely because of the

¹²⁹ Ciranna, Simonetta, *Spolia e caratteristiche del reimpiego nella Basilica di San Lorenzo fuori le Mura a Roma*, (Rome 2000), & figs 68–86.

¹³⁰ Kinney, Dale, "Spolia," in Tronzo, William, ed., *St. Peter's in the Vatican*, (Cambridge 2005), 16–47; see 27–9 for details.

¹³¹ Binous, Jamila, et al., *Ifriqiya. Treize siècles d'art et d'architecture en Tunisie*, (Tunis 2000), 55.

¹³² Favro, *Urban image*, 56.

lack of desire to rebuild the antique; and a much better source for S. Trophîme or S. Gilles-du-Gard is Syria.¹³³

Generally, substantial remains from single monuments were used simply as blocks.¹³⁴ Exceptions are several of the doorframes in the 9th-century church rebuild at Myra (on much the same scale as the destroyed Justinianic structure), brothers to which can still be inspected at nearby Andriake;¹³⁵ the doorframe on the west façade of the 5th-century S. Salvatore at Spoleto; and the transport, already mentioned, of the Crusader-period doorway from Acre to Cairo to decorate the Madrasa and Mausoleum of Al-Nasir Qalaun.¹³⁶ It should be noted just how much this doorway has been altered with marble inlay and inscription (which makes no reference to anything like “triumph”) so, remembering the ubiquity of re-use, statements such as “The re-use in a Muslim religious building of a portal that originally had adorned a Christian ecclesiastical structure amounted to a conscious and deliberate affirmation of the superiority of Islam over Christianity” are perhaps too ambitious.¹³⁷ Roman decorative as well as structural units could also serve Islam, as when a shell niche was used for the small mosque at Jerash, close to the *cardo*, or the Roman jambs and lintel for the main entrance to Qasr Al-Hayr West, which presumably came from Palmyra, some 60km away.¹³⁸

Occasionally, a mediaeval building was erected to incorporate antique remains, as with the Roman arch at Kizkalesi-Korykos (perhaps the beginning of a colonnaded street—the source for the marble tie-bars?), used as an embellishment for the land castle.¹³⁹ In most cases, the buildings simply used adjacent antiquities, as in the column-shafts used

¹³³ Vogt-Göknil, Ulya, *Frühislamische Bogenwände. Ihre Bedeutung zwischen der antike und dem westlichen Mittelalter*, (Graz: 1982), fig. 245 for a comparison with Qalat Simaan.

¹³⁴ The 1152 Torre Febronia at the Abbazia del Goleto used blocks from the monument to M. Paccius Marcellus: cf. <http://www.goleto.it/storia.htm>.

¹³⁵ Borchardt, Juergen, ed., *Myra. Eine Lykische Metropole in antiker und byzantinischer Zeit*, (Istanbuler Forschungen 30), Berlin 1975, 64–75.

¹³⁶ The 11th-century Madonna della Libera at Aquino (Lazio), uses 7m of Roman frieze for the jambs of its central doorway, complete by a funerary stele.

¹³⁷ Jacoby, Zehava, “Crusader sculpture in Cairo: additional evidence on the Temple Area Workshop of Jerusalem,” in Folda, J., ed., *Crusader art in the twelfth century* (Oxford 1982), 121–38; see 126.

¹³⁸ Creswell, K.A.C., in *EI Architecture*.

¹³⁹ Herzfeld, E., & Guyer, S., *Miriamlik und Korykos. Zwei christliche Ruinenstaetten des Raumen Kilikiens*, (Manchester 1930), 90–207.

as ties in the Crusader fortress (c.1108) at Byblos, from the plentiful marble and granite columns.¹⁴⁰

*Marble veneer slabs*¹⁴¹

Marble veneer for walls was tricky and slow to cut, with significant wastage. It required careful fixing.¹⁴² And because of its fragility, old veneer was difficult to find in intact sheets, and also for this reason very valuable and highly prized.

There are two kinds of marble wall veneer, the first being large sheets of usually white-and-veined marble which can be cut into patterns and “pictures” by splitting in two for mirror patterning, or by quartering. For smaller slabs, columns would be sawn longitudinally. Some such slabs, if thick enough, could also be used as flooring. Such veneer was sometimes used for external walls, as in the Green Mosque at Bursa. In the West, large slabs gave way to tesserae, best known under the Cosmati. But in Byzantium, such large slabs sometimes replaced tesserae floors¹⁴³—so there were sufficient sheets (and marble cutting expertise) at Constantinople to indulge what might have been a fashion, rather than necessarily an indicator of marble shortage. Because of its fragility veneer collections could be miscellaneous: the Duomo at Bari, for example (1034ff.) used marbles that came from Lesbos, Marmara, Paros, Thasos, Carrara and Mount Pentelicon. Scavenging was necessary, because suites of material were scarce.¹⁴⁴ The complement is perhaps the large amount of Islamic-inspired terracotta decoration on the Duomo’s exterior.¹⁴⁵ There is no reason why marble could not have

¹⁴⁰ Dussaud, René, *Topographie historique de la Syrie antique et médiévale*, (Paris 1927), 64, cites Ernest Renan, *Mission de Phénicie*, (Paris 1864–74) on the “innumerable marble and granite column-shafts scattered around.”

¹⁴¹ Dvd_marble_veneer_slabs.doc.

¹⁴² Adam, *Roman building*, 227–8: thick slabs needed cramps; thin ones were stuck with mortar. Ball, Larry F. “How did the Romans install revêtement?” *AJA* 106.4 2002, 551–74.

¹⁴³ Maguire, Henry, “The medieval floors of the Great Palace,” *Byzantine Constantinople*, 153–74; see 157, 162.

¹⁴⁴ Calia, Angela et al., “I matronei della Cattedrale di Bari: studio integrato sull’identificazione, la provenienza e il reimpiego dei marmi,” *Marmora* 1 2005, 187–208.

¹⁴⁵ —and perhaps the pierced marble window and window surround on S. Gregorio, Bari, which has re-used columns and splendid capitals to the nave arcades.

been cut and loaded directly at Alikí (Thasos) or at Proconnesus during the Middle Ages, but we have no evidence that this happened.¹⁴⁶

The second type of veneer is the jigsaw-like patterns and actual pictures which make up *opus sectile*. Designs and figured pictures made from coloured marbles were a popular element of Roman luxury,¹⁴⁷ and several such floors and walls have survived, usually fragmentary. Because of the rare marbles often used, they stood higher up the food chain than small mosaic tesserae, and were popular as church decoration for presbytery floors and lower walls, often incorporating porphyry both red and green. The technique seems to have been especially popular in the Eastern Mediterranean, where it appears to have been imported into Cyprus from the 5th/6th century onwards (presumably old pieces, and replacing stone) to decorate churches.¹⁴⁸ We might add a third, namely small mosaic cubes for floors and walls, but recognize the distinction in skill and work-time, with veneer being much more costly than small tesserae.¹⁴⁹ In Rome, the *opus sectile* walls of a 4th-century hall were left intact when it was converted into S. Andrea in Cata Barbara, in spite of the obviously profane figural decoration. As Brandenburg remarks, it was the splendour that mattered, not the content.¹⁵⁰

Veneer might sometimes have been difficult to retrieve. At Leptis Magna a concrete base created difficulties: this gripped the proconnesian flooring slabs of the Severan basilica (some of them 30cm thick)—whereas the coloured wall veneers of the aisles were stripped.¹⁵¹ But its use was long-lived, and forms the delight of many Baroque church interiors. S. Pietro in Valle (Fano), for example, uses no fewer than 44 decorative stones, some fresh-cut, but some probably from the ruins of Fano, and others brought from Rome.¹⁵²

¹⁴⁶ For suggested techniques a little earlier, cf. Sodini, Jean-Pierre, et al., “Les carrières de marbre à l’époque paléo-chrétienne,” *Alikí I* 1980, 81–137, especially figs 83–5.

¹⁴⁷ Mancini, Adele, “La chiesa medievale di S. Adriano nel Foro Romano,” *Atti della Pontificia Accademia romana di archeologia. Serie 3, Rendiconti XL* 1967–8 191–245: fig. 2 for *opus sectile* walls of Diocletian’s refurbishment of the Curia.

¹⁴⁸ Michaelides, D., “Opus Sectile in Cyprus,” in Bryer, A., and Georgiades, G.S., eds. *The Sweet Land of Cyprus*, (Birmingham 1993), 69–114; Papacostas, Tassos. “The economy of late antique Cyprus,” in Decker, Michael, & Kingsley, Sean A., eds., *Economy and exchange in the East Mediterranean during Late Antiquity*, (Oxford 2001), 107–128; electronic edition at <http://timea.rice.edu/texts/PapEcon/PapEcon.html>.

¹⁴⁹ DeLaine, *Baths*, 188.

¹⁵⁰ Brandenburg, *Ancient churches of Rome*, 218.

¹⁵¹ Ward-Perkins, *Severan buildings of Leptis Magna*, 41, 59.

¹⁵² Antonelli, E., et al., “Provenance of the ornamental stones used in the baroque church of S. Pietro in Valle (Fano, Central Italy) and commentary on their state of conservation,” *Journal of Cultural Heritage* 4 (2003) 299–312.

Thick marble slabs and transennae

Two types of slabs were re-used, the first being much more robust than sheet veneers. These are the thicker marble slabs used in Roman basilicas as “low walls” spanning intercolumniation, sometimes at ground level but more usually on an upper floor, or for fencing off the presbyterium of a church from the general congregation. Such slabs were usually decorated; most were solid but some were pierced; and because of their structural purpose, they were of modular dimensions (like columns and capitals) almost as regular as those of a Japanese tatami mat. So regular were transennae that they are the element after columns and capitals most likely to be retained and re-used in later iterations of a church, as can be seen in Rome at S. Sabina and S. Clemente; S. Prassede displays early transennae in a chapel, for these did not fit the later altar arrangements.

Regularity increases utility and re-utility, and from Early Christian times onwards we find such “marble walls” surviving in settings erected centuries after their first incarnation, perhaps also surrounding the Haram Al-Sharif in Jerusalem. Many of the slabs certainly began life in pagan settings, and their use in churches (and sometimes as decoration on external walls) began to decline only in the 13th century. Marble slabs pierced into patterns formed windows, and might have been common (along with translucent alabaster) in Early Christian churches. The Dome of the Rock may have had such windows, but they are best seen today in the Umayyad Mosque at Damascus, and the Mezquita at Córdoba. Western survivals in rural locations can be coarser.¹⁵³

The second type was slabs associated with tombs, and usually inscribed. In England in 1289, the size of such a piece of marble was a cause for comment,¹⁵⁴ but on the continent such old slabs were much more common. These often survive because of their handy size for incorporating into walls and the like, but there could be dangers. Saint Theodore of Sykeon (d.613) had to perform exorcisims after workmen in Bithynia used gravestones (probably limestone, not marble) to build a bridge, and when a whole village was afflicted after the cover was

¹⁵³ E.g. for San Pelino at Corfinio: cf. Favole, Paolo, *Abruzzo e Molise* (Italia Romanica 11), (Milan 1990), pl. 19.

¹⁵⁴ L-B *England*, 1800, at Furness Abbey (Lancashire): “corpus iacet sub longo colosso marmoreo in capitulo sine epitaphio.”

removed from an old sarcophagus, and a tumulus interfered with in search of treasure.¹⁵⁵

Bas-reliefs aniconic and figured

Non-iconic reliefs were much sought by all, while bas-reliefs of pagan and Christian scenes, sometimes prized by Christians, were eschewed by Moslems. The “inhabited scroll” (which includes figures of various kinds in with foliage) was particularly popular after the Millennium, but an earlier example is the superb 3rd-century pilaster re-used in his Oratory by John VII (705–7).¹⁵⁶ Proof positive of the cosmatesque interest in incorporating where possible real antiquities (apart from marble pieces, capitals, etc.) is seen in the re-use by the Laurentius Family of an early 4thC “polo” shaped ring relief with scenes from the life of Achilles for the ambo in SM in Aracoeli (now in the Musei Capitolini),¹⁵⁷ and in the Vassalletto family’s re-use of a superb antique eagle relief in the atrium of the SS. Apostoli.¹⁵⁸ Sarcophagi provided figured reliefs, and vessels were sometimes sawn to provide them, as with the panel displayed on Tarragona Cathedral.¹⁵⁹ There are plentiful examples of sarcophagus-fronts used as friezes on churches. When he rebuilt S. Anne in Trebizond in 885, Basil I decorated it with a sarcophagus relief.¹⁶⁰ Several entablatures near Pisa (such as S. Cassiano a Settimo, 1180) are made from sarcophagi, and plenty of newly-cut entablatures are inspired by them.

At classical sites, it is not unusual to find figured reliefs incorporated into later fortifications, as with the Gate of Persecutions at Seljuk/Ephesus (7thC?), or the famous relief of the dancing nymphs which Cyriacus of Ancona saw set into Prince Palamedes’ fortress on Samothrace in 1444.¹⁶¹ Similarly, Christian reliefs could move from church to

¹⁵⁵ Mitchell, Stephen, *Anatolia: land, men, and gods in Asia Minor*, (Oxford 1993), II 122ff., 139f.

¹⁵⁶ Brandt, Michael, & Eggebrecht, Arne, eds., *Römer- und Pelizaeus-Museum, Bernward von Hildesheim und das Zeitalter der Ottonen*, (Hildesheim 1993), entry III–8.

¹⁵⁷ Claussen, P.C., *Magistri doctissimi romani: die römischen Marmorkünstler des Mittelalters (Corpus Cosmatorum I)*, (Stuttgart 1987), 61 & fig. 66.

¹⁵⁸ *Ibid.*, 61, 115, & fig. 126.

¹⁵⁹ Keay, S.J., *Roman Spain*, (London 1988), 19.

¹⁶⁰ Eastmond, *Art and identity in thirteenth-century Byzantium*, 43ff.

¹⁶¹ *Cyriacus: Later travels*, Diary II, 101; *ibid.*, 103 he notes at Capsulum (a new town founded by Palamede), a classical inscription on the church of Demetrius the Martyr.

church and, along with columns, even be taken over as grave markers for Muslim tombs.¹⁶²

Funerary stelae with figures

Stelae with figures, not necessarily of marble, are one of the most numerous of Roman survivals, and many came to light during population expansion outside the pomerium of erstwhile Roman centres, often during the building of new walls, in which many were then incorporated. They were used in both civic and religious locations in Italy and further east,¹⁶³ but were rarely¹⁶⁴ re-incised with new names (let alone recarved heads) to serve as Christian memorials. Such reworking would have paralleled the re-use of antique sarcophagi both pagan and Christian, or the rebadging by the Romans of Greek honorific statues. They were, however, used reversed as floor-slabs. I know of no evidence that such stelae were transported any great distance for re-use, and most re-use is restrained. At Avellino, however, reliefs taken from the ancient eponymous city of Abellinum are used in profusion, placed conspicuously in the Romanesque campanile of the Duomo.¹⁶⁵ Much of the material is funerary (stelae with busts, plus a doric frieze from a large monument). And although the campanile basement is not perhaps to our eyes very carefully built, it is all of old blocks, and marble at that, which get much tidier the higher we go, with marble blocks forming the quoins, and tufo the rest.¹⁶⁶ All the visible pieces—stelae, frieze blocks and inscriptions—seem to have been inserted the right way up, which is far from the universal practice. Hence we may surmise that they were thus placed in order to be “read,” presumably as witnesses to the glorious past of the city. Two further reliefs in the museum at Avellino came from other churches there or in the vicinity.

¹⁶² Mécérian, Jean, *Expédition archéologique dans l'Antiochène orientale*, (Beirut 1965), for antiquities from S. Thomas: figs 35–7 for reuse in a church at Yoghoun-Olouk; figs 39, 138–40 for (undated) reuse for Muslim tombs at Djéararé.

¹⁶³ Papalexandrou, Amy, “Memory tattered and torn: spolia in the heartland of Byzantine Hellenism,” in Van Dyke, Ruth M., & Alcock, Susan E., eds., *Archaeologies of memory*, (Oxford 2003), 56–80; see 60–1 for Church of the Virgin (13thC?) at Merbaka in the Argolid, which has two funerary stelae in it.

¹⁶⁴ A Roman funerary cippus inscribed with the names of saints is in SS Felice & Fortunato, Verona.

¹⁶⁵ Cf. Frenz, H.G., *Römische Grabreliefs in Mittel- und Sueditalien*, (Rome 1985), cats 99, 100, 110, 115.

¹⁶⁶ Gambino, N., ed., *La cattedrale di Avellino*, (Cava dei Tirreni 1985), 97ff. & Tav. XVII–XXI.

At Acerenza, Todisco suggests that a renaissance bust was fashioned to join the two figured funerary reliefs (one single, one double) and the sarcophagus front placed on the west and south faces of the campanile “ad un’altezza tale da ben incontrare lo sguardo dei passanti”—the whole forming “un ben preciso programma di rivalutazione della classicità”¹⁶⁷—always assuming the bust of Julian the Apostate is not really 4th century. Perhaps the rectangular frieze slabs used as construction blocks in Saint-Just de Valcabrère were also intended to link the church to the nearby ancient city.¹⁶⁸ Further examples of reliefs incorporated in campanili appear below in the chapter on Italy.

An index of the popularity of funerary stelae is that they were imitated. At Gemona (Udine), Drusin believes with others that a rectangular block from the “muraglione del sagrato,” incuse, and roughish, showing a male and a female bust within a double round-arched niche, the face being plain, is in fact 13th-century Romanesque imitating ancient models.¹⁶⁹ If this is accepted, then at least one mediaeval sculptor was imitating funerary reliefs such as one finds in the campanile at Benevento, and placing them in the wall of his own church—which would be proof positive of the prizing of source antiquities, but certainly not of their rarity.¹⁷⁰ Could this be the rationale behind Wiligelmo’s sarcophagus-like reliefs at Modena, a confirmation of the artist’s antiquarianism and an elegant reference to locally-discovered pieces?

Roman cemeteries also provided three-dimensional sculpture, but judging by rare survivals this was little used, although it did provoke legends and superstitions which flag an aversion to sculpture in the round.¹⁷¹ Exceptions are the full-length classical statues on the Porta Consolare at Spello, the statues on the mediaeval gates of Pavia,¹⁷² and whole prides of lions, usually with apotropaic ramifications (hence their popularity) on cathedrals such as Modena. They were often reworked, as at Bari (which was given a new inscription) sometime between the

¹⁶⁷ Todisco, L., “Il busto della cattedrale di Acerenza,” *Xenia* XII 1986, 41–64; see 50–1.

¹⁶⁸ Espérandieu, *Recueil*, II.19 cat. 869.

¹⁶⁹ Drusin, N., ed., *Il duomo di Santa Maria Assunta di Gemona*, (Udine 1987), 199–200 & adjacent figure.

¹⁷⁰ Benevento has one built into a house on Vico Volpe; and SM Capua Vetere boasts several.

¹⁷¹ D’Arcy, Anne Marie, “The faerie king’s Kunstammer: imperial discourse and the wondrous in Sir Orfeo,” *The Review of English Studies*, NS58 2007, 10–33.

¹⁷² Greenhalgh, *Survival*, Chap 5.

late 11thC and 1150.¹⁷³ Sculptures were occasionally incorporated into mediaeval structures, one popular type being papal thrones in marble, which freely use lion armrests as well as classical inscriptions.¹⁷⁴ The story of the place of antiquities in the development of mediaeval 3D sculpture is too lengthy to be told here.¹⁷⁵

Sarcophagi

Inscriptions are found far from home when on sarcophagi, which were the splendid set burial pieces of the classical world, popular all over the Mediterranean.¹⁷⁶ Many were to be seen in vast cemeteries, open to the air and never buried, as at Pola.¹⁷⁷ Obtained by order from their distant quarries, transported hollowed out and rough-finished, they were usually fine-finished at their destination, as can be seen from the collection in the cemeteries of Tyre, which appears to have acted as an entrepôt for Alexandria.¹⁷⁸ In Islam they were sometimes used as ablution basins, as for example the blocked-out garland sarcophagus in the funerary-religious complex of Qalaun, in Cairo, of 1284–5. The majority was made of white or veined marble, but vessels in porphyry produced from exclusive Imperial quarries maintained their aura for that very reason, the more so because of they were used for the burial of Byzantine emperors,¹⁷⁹ as well as being treasured in the West.¹⁸⁰ The Early Christians were enthusiastic users of such marble vessels, often

¹⁷³ Todisco, L., “Il leone ‘custos iusticie’ di Bari,” *Xenia* X, 1987, 129–51.

¹⁷⁴ Gandolfo, Francesco, “Reimpiego di sculture antiche nei troni papali del XII secolo,” *Atti della Pontificia Accademia romana di archeologia. Serie 3, Rendiconti* XLVII 1974–5 203–18; fig. 1 for SM in Cosmedin, with lion arm-rests; fig. 2 for San Clemente, with a large and readable inscription running top to bottom on the backrest: MARTYR; 216 for the necessary interpretatio christiana.

¹⁷⁵ Beutler, C., *Statua. Die Entstehung der nachantiken Statue und der europäische Individualismus*, (Munich 1982).

¹⁷⁶ Ward-Perkins, J.B., “The imported sarcophagi of Roman Tyre,” *Bulletin du Musée de Beyrouth* 22 1969, 109–45, for distribution maps.

¹⁷⁷ Letts, Malcolm, ed., *The pilgrimage of Arnold von Harff Knight from Cologne, through Italy, Syria...*, (London 1946), and travelling 1496–9; see 75: “All around the town are many splendid stone tombs six feet above the earth, closed with a stone lid. They stand there a hundred in a row, now fifty now thirty all in rows, so that I was told that the tombs round the town numbered more than 3,000.”

¹⁷⁸ Ward-Perkins, “The imported sarcophagi of Roman Tyre,” 136.

¹⁷⁹ *Vasiliev, A.A., “Imperial porphyry sarcophagi in Constantinople,” *DOP* 4 1948, 1–26.

¹⁸⁰ E.g. the “baignoire de Dagobert” in the Louvre, from S. Denis: cf. *Malgouyres, Philippe, & Blanc-Richl, Clément, *Porphyre. La pierre pourpre des Ptolémées aux Bonaparte*, (Paris 2003), cat. 19, seized at the Revolution.

intricately figured, and sarcophagi preferably of marble (stone is sometimes used in France) were de rigueur for the popular, displayed and venerated altar-tombs of saints and martyrs.¹⁸¹ S. Ambrogio in Milan even incorporates a 4th-century vessel under the ambo,¹⁸² described as “a farrago of ca.1200, combining the sculpted pieces which survived from the destroyed Romanesque pulpit of ca.1100 with some additional preexisting material”¹⁸³—and but one of many examples of re-re-use. A more normal position for such a vessel is underneath an altar table, as in S. Trophime at Arles, since every Catholic altar must contain relics. Such vessels were intended to be viewed (hence their decoration), and it is clear that this usually happened.¹⁸⁴ Christianizing them, usually with one or more crosses, was simple.¹⁸⁵ And in contradistinction to the funerary reliefs just discussed, it was normal to put new inscriptions on old sarcophagi, and sometimes to chisel off existing motifs to add a coat-of-arms. Sometimes sarcophagus panels, rather than whole vessels, were re-used. Thus at Pavia the 2.44-metre-long undecorated vessel of the fourth-century bishop Syrus in SS. Gervasio & Protasio was sawn lengthways into two, sometime between the ninth and thirteenth centuries, and placed in the apse walls flanking the high altar, to contain relics.¹⁸⁶ Again, in the crypt of S. Nicola at Bari, the saint reposes (if not at Venice!) under the altar, but the fragmentary front

¹⁸¹ Quintavalle, Arturo C., “L’antico ritrovato, città, architettura, figura. Il San Caprasio di Aulla, il Castello di Berceto, i sarcofagi del Sant’Ambrogio di Milano e del Duomo di Mantova,” in Quintavalle, Arturo C. ed., *Medioevo: immagini e ideologie*, (Milan 2005), 211–26, for an overview of issues concerning their re-use.

¹⁸² Capponi, Carlo, ed., *L’ambone di Sant’Ambrogio*, (Milan 2000), supposedly of Stilicho, recut end of 12thC: *Rilavorazione*, cat. 40. Hesberg, Henner von, *Monumenta: i sepolcri romani e la loro architettura*, (Darmstadt 1992), fig. 97 for a funerary monument at Termessos with a square base and three-column piano nobile housing a sarcophagus under a decorated triangular pediment: does the Milanese arrangement derive from such a layout?

¹⁸³ Tcherikover, Anat, “The Pulpit of Sant’Ambrogio at Milan,” *Gesta* 38.1 1999, 35–66: see the abstract.

¹⁸⁴ Cf. the converse case when the sarcophagus of Sant Apollinare was “quae arca sub terra missa est propter metum paganorum” (AASS Iul 5 350). See Picard, Jean-Charles, *Le souvenir des évêques: sépultures, listes épiscopales et culte des évêques en Italie du Nord des origines au X^e siècle*, (Rome 1988), 116. The marble sarcophagus of Ecclesius was discovered sealed into the altar masonry of San Vitale in 1581, perhaps because of similar threats.

¹⁸⁵ Wiegartz, Hans, *Kleinasiatische Saulensarkophage: Untersuchungen zum Sarkophagtypus und zu den figurlichen Darstellungen*, (Berlin, 1965), one of which found its way to Ancona: 144 & pl. 26: Christianised with an engraved cross on the front and three raised ones on the lid; the latter thought to be 2nd half of 6thC.

¹⁸⁶ Picard, *Le souvenir des évêques*, 201.

panel of a philosopher sarcophagus set into the south wall is that of the builder, Abbot Elia (re-used 1105). In the cloister at Moissac (completed 1110: it also contains a Kufic inscription) the full-size corner figures are shallow-carved out of marble slabs, arguably from long-side sarcophagus panels. The funerary slab of Abbot Isarn in Saint-Béat marble, from the Abbaye de S. Victor, Marseilles, is probably recut from the type of rounded-end sarcophagus base common in the 2nd & 3rd centuries.¹⁸⁷

The vogue for sarcophagus burial was early adopted by the Longobards, largely for saints rather than rulers.¹⁸⁸ This would be a clear indication of their attitude to the Roman past,¹⁸⁹ although the front of an Amazon sarcophagus panel was incorporated into the paving of S. Salvatore at Brescia, rather than being displayed. The vogue spread, and the popes translated several saints into such vessels, some of them porphyry.¹⁹⁰ Agnellus of Ravenna tells of an early 9th-century bishop of Bologna who carried off a stone sarcophagus for his own tomb.¹⁹¹ Kings, Emperors and Popes were buried in them, the bigger the better,¹⁹² and some cemeteries were enormous, such as the Alysamps at Arles, and the funerary basilicas in the Salona area, such as Manastir.¹⁹³ For rulers in Italy, antique vessels of marble were in great demand—especially decorated ones from the earlier centuries of the Empire,

¹⁸⁷ Fossier, Robert, et al., eds., *La France au temps des premiers capétiens (987–1152)*, (Paris 2005), cat. 178.

¹⁸⁸ Bejor, Giorgio, “Il reimpiego di sarcofagi antiche nell’Italia Longobarda,” in Andreae, *Reimpiego dei sarcofagi*, 98–107: at S Pietro in Valle (Ferentillo, Terni, south of Spoleto) one for burial of the founder Faroaldo II duke of Spoleto (d.724), but none at Spoleto for secular use. A new vessel appears to have been made for Archbishop Felix (d.724), in S. Apollinare in Classe, imitating 6th-century productions, but very clumsily.

¹⁸⁹ Rotili, M., “Architettura e scultura dell’alto medioevo a Benevento,” *CCARB* 14 1967, 293–307; “I monumenti della Longobardia meridionale attraverso gli ultimi studi,” *La Civiltà dei Longobardi in Europa*, (Rome 1974), 203–39; “L’eredità del antico a Benevento dal VI all’VIII secolo,” *Napoli Nobilissima XIV* 1975, 121–8; “La cattedrale di Benevento nell’alto medioevo,” *Boll. di Storia dell’Arte del Centro Studi per i Nuclei Antichi e Documenti Artistici della Campania Meridionale I* 1977, 3–14; and cf. Pietrangeli, C., “I sarcofagi romani dell’Abbazia longobarda di Ferentillo,” *Atti I Cong. Int. Studi Longobardi*, (Spoleto 1951), 451–6.

¹⁹⁰ Gnoli, *Marmora*, 54–5 for a list.

¹⁹¹ Agnellus, *Pontiffs*, para. 1.

¹⁹² *Rilavorazione*, 24 for Roger I’s vessel, now Naples, from the Abbazia della Trinità at Mileto, which measured 180 × 240 × 92cm.

¹⁹³ Dyggve, Ejnar, *History of Salontan Christianity*, (Oslo 1951); e.g. IV:9 for an old photograph of the burials round the apse of the basilica at Manastirine; IV:32–3 for presbytery and marble transennae from the Five Martyrs Basilica.

and those of porphyry. Indeed, the popularity of antique sarcophagi with the upper classes of society both clerical and secular (if only in certain areas) was the most important factor in the rate of survival of this class of artefacts: some were re-used several times, some as family tombs for more than one occupant. But the vogue for their prestige and widespread use among the civilian population does not appear to date from before (perhaps) the 11th century, by which time many of them needed recutting¹⁹⁴ as well as reassigning to their new occupants. In Northern Italy, doctors, professors and judges appropriated ancient sarcophagi, sometimes recut with a new inscription.¹⁹⁵ Such vessels had a snob-value and hence a high cost that newly-cut vessels lacked.¹⁹⁶ In Pisa, their extensive use (more than 100 survive) suggests a legitimization of political power¹⁹⁷—and indeed the Pisans set fragments of Roman inscriptions, not necessarily local, in the walls of their Duomo, conceivably to complement the antique vessels arranged around the church. In Rome, Cardinal Fieschi's monument in S. Lorenzo fuori le Mura (d.1256) is a fine marriage sarcophagus intact with lid, and set on a re-used veneer base, with columns supporting a canopy.

However, there are caveats to this outline of re-use. The first is that, apart from burial, sarcophagi were of little use for anything else except breaking up for wall decoration (cf. the garden façade of the Villa Medici, Rome), for water troughs (Rome would be the more thirsty without them) or occasionally to make transennae for churches.¹⁹⁸ The second caveat is that very large vessels were generally left alone, presumably because they were too difficult to move—although even today such vessels with the moving bosses or nipples intact are not difficult to find,¹⁹⁹ and splendid vessels from Dokimeion are to be found all around

¹⁹⁴ Quintavalle, Arturo Carlo, "Quei campi dei miracoli," *Rilavorazione*, 15–28: he deals with 2nd half of 11th and early 12thC.

¹⁹⁵ *Il Veneto nel medioevo*, I, 380 & fig. 50: tomb of the judge Rolando da Piazzola, d.1325.

¹⁹⁶ Pensabene, P., "Reimpiego dei marmi antichi nelle chiese altomedievali a Roma," in Borghini, G., ed., *Marmi antichi*, (Rome 1989), 54–64. Marangoni, *Delle cose gentilesche*, 293–326 for various uses for urns and sarcophagi.

¹⁹⁷ *Donati, Fulvia, & Parra, Maria Cecilia, "Pisa e l'impiego 'laico': la nobiltà di sangue e d'ingegno, e la potenza economica," in Andreae, *Reimpiego dei sarcofagi*, 103–21.

¹⁹⁸ Guiglia Guidobaldi, Alessandra, "Spolia classiche e scultura altomedievale nella chiesa dei SS. Primo e Feliciano a Leggiuno," *Domum tuam dilexi: miscellanea in onore di Aldo Nestori*, (Vatican City 1998), 451–86.

¹⁹⁹ Borchardt, *Myra*, pl. 87 for such a vessel at Sura, near Myra.

the coast of Turkey, in their original locations. Thus the great majority of vessels at Pisa and Salerno are small in comparison with the real monsters (such as those in the yard of the Archaeological Museum at Thessaloniki). Sawn down, they could also provide funerary floor-slabs, using the verso, as with the two examples in the narthex of S. Sabina, Rome. The third caveat is that, even today, sarcophagi survive conveniently located near to rivers, but have not been spoliated²⁰⁰—although of course we cannot know how many have indeed been removed. This is in spite of the fact that the Western interest in reusing sarcophagi actually as funerary vessels was no doubt helped by the (earlier) Muslim indifference to sumptuous burial in general.

Another use for sarcophagi was as lintels and structural blocks, as marble RSJs, as it were. At S. Pierre in Narbonne (refurbished with sculpture in the later 12thC), sarcophagi (or perhaps just their front panels) are built into two walls at eye-level. These give straight edges to two interior wall corners; a fragmentary one is plastered into a wall; and another front with vine decoration forms a lintel. Plenty were available, because this was a cemetery church, and over a dozen marble vessels survive today in the crypt. Clearly, sarcophagi were solid enough to serve in later structures—such as those Cyriacus of Ancona saw at the port Maroneia (Thrace) in 1444, “which had been demolished and thrown together by the seaside to serve as a mole.”²⁰¹ Since marble was quarried about 4km from the coast, and about 35km to the west, it is possible that what Cyriacus saw was a stockpile of vessels awaiting export.

Just how visible the majority of sarcophagi were in the mediaeval West is contentious. Many were displayed in specially designed crypts, others around the exterior of churches or in large cemeteries such as the Alyscamps—after all, these were expensive objects, with the front and lid and often both sides decorated. But were some antique ensembles continuously visible? Many in Ravenna appear to have been so, according to Agnellus.²⁰² So was it lack of knowledge of their existence, rather

²⁰⁰ Immerzeel, Mat, “L’emploi du marbre pyrénéen pour la production de sarcophages paléochrétiens en Gaule: la Provence et les Pyrénées,” in Cabanot, Jean, et al., eds., *Les marbres blancs des Pyrénées: approches scientifiques et historiques*, (S. Bertrand des Comminges 1995), 207–22; fig. 3 for their location along rivers.

²⁰¹ Cyriacus: *Later travels*, Diary II, 107. Such a destination for antiquities was common; it happened at Alexandria, and also at Caesarea, for which see Vann, Robert Lindley, ed., *Caesarea papers*, (Ann Arbor 1992), 52 fig. 2 for a plan of the harbour.

²⁰² Agnellus, *Pontiffs*. Stone: 1, 77, 97; marble: 39; and he opened one: 26.

than difficulties of moving such great weights, which meant that the take-up of sarcophagus burial in the Middle Ages was so patchy?²⁰³

Types of buildings using marble

If we except variations on the basilica and on (often central-plan) monumental tombs, no forms of ancient building were revived in the Mediterranean during the Middle Ages, as we can tell from actual survivals. Artistic representations in manuscripts and on other Kleinkunst do not reflect reality,²⁰⁴ although this is the one area offering a definitive assurance that parts of the West actually wished to picture some of the parameters of Roman and Early Christian architecture. Nevertheless, the fanciful and marble-rich buildings in manuscripts of the Carolingian period onwards are a revival of the antique which apparently was never translated into anything larger than small-scale reliquaries, ivories, or liturgical metalwork, for it was purely conventional.²⁰⁵ Thus on the ivory cover of the Lorsch Gospels (Victoria & Albert Museum, c.810), Christ's manger is supported on splendid columns, as it is in another Carolingian Nativity in the British Museum (c.900). Einhard's triumphal-arch cross-base encapsulates both the small-scale inspiration and its fulfillment.²⁰⁶ It is certain that there were plentiful survivals to model with a brush and colour, because the landscape of ruins anywhere in the erstwhile Roman world was a constant, and it is spoliation and copying that are the often inexplicable variables. Even when population expansion by cities produced more antiquities—their very own antiquities, much better than those of their rivals, often to be displayed with proprietorial and antiquarian pride—this was translated only into the incorporation of reliefs and the occasional sculpture within the urban environment. Never until Alberti do we see the clear desire to resurrect anything that

²⁰³ dvd_cornices_entablatures_and_sarcophagi.doc.

²⁰⁴ An exception might be various MSS which appear to depict Roman painting, such as some of the backgrounds and scenes in the Soissons Gospels, late 8thC, Paris BN. But artworks do not generally reflect reality even for a narrative of contemporary events: cf. Lewis, Michael John, *The archaeological authority of the Bayeux tapestry*, (Oxford 2005); see 27, 29 for Bosham and Mont-S-Michel.

²⁰⁵ Duval, Noel, "La représentation du palais dans l'art du Bas-Empire et du haut Moyen Age d'après le psautier d'Utrecht," *Cahiers Archéologiques* 15 1965, 207–54.

²⁰⁶ See generally Dierkens, Alain, "AD INSTAR ILLIUS QUOD BESELEEL MIRO COMPOSUIT STUDIO: Eginhard et les idéaux artistiques de la 'renaissance carolingienne,'" in Sansterre, Jean-Marie, *L'autorité du passé dans les sociétés médiévales*, (Rome 2004), 338–68.

looks to us like antique architecture, by studying survivals, although it seems likely that Brunelleschi thought he was imitating certain elements of the antique. Thus to see where old elements were used, we need to look at individual sections rather than the whole building.

Church interiors

As descendants of Roman civil basilicas, church interiors in important locations have often been lavishly decorated, with marble encompassing pulpits, altars, screens separating the presbyterium from the nave, and floors, often with inscriptions.²⁰⁷ All these elements are frequently to be found in re-use, sometimes more than once, and sometimes imported for a new building. As already noted more than once (because the matter is of crucial importance), it is likely that the post-Millennium church-and-marble surge is not a new idea, but rather another recycling of old materials into larger constructions.

But how were disparate materials to be arranged? Malmstrom identifies three basic setups—any-old-how, matched pairs, and “visual patterns...by the thoughtful arrangement of diverse elements.”²⁰⁸ He demonstrates that in earlier centuries (as with S. Prassede) the best were positioned toward the altar; later, the best columns were placed where they best served the design. Pensabene also wants to see the matching of columns not just as decorative, but in almost mathematical sequences, perhaps marking out the various liturgical areas of the church, citing S. Agnese and SM in Cosmedin. He suggests that in basilicas of the fourth to sixth centuries, such re-use is in fact the attempted reconstruction of a classical ambiance, with old marbles being given a prominent place in their setting, rather as Constantine’s admiration for Trajanic material—the Forum still retains many of its massive granite monoliths—was expressed visually in the Arch of Constantine.²⁰⁹ Similar care is possible in much more humble buildings. Di Cosmo sees the Siponto crypt as having the re-used marble (which she suggests came from an adjacent Early Christian basilica) cleverly disposed for maximum visibility, with light from windows, and the best concentrated around the

²⁰⁷ Is the vogue for inscriptions on steps (e.g. Bari) derived from observation of the antique, such as the steps of the Temple of Apollo at (easily accessible) Claros, near Ephesus?

²⁰⁸ Malmstrom, Ronald E., “The colonnades of high medieval churches at Rome,” *Gesta* 14 1975, 37–45.

²⁰⁹ Pensabene, “Reimpiego,” 55–6.

altar.²¹⁰ Hence the marbles are indeed used to guide the pilgrim toward the focus, namely the altar, in both upper and lower churches.²¹¹ But balance and sophistication are not always employed: the cosmatesque floor in S. Andrea in Flumine at Ponzano Romano includes fragments of 9thC transennae in an haphazard formation.²¹²

If the exact recreation of the pagan antique (as distinct from Early Christian forms) is never on the agenda, nevertheless builders generally desire to place the elements, especially columns, capitals and bases, in as harmonious a relationship as possible, as several scholars have observed for the churches of mediaeval Rome.²¹³ The same applies in Turkey. The interior of Kalenderhane, in Constantinople, shows similar concerns for the elegant location of old materials. Indeed, attempts at balancing (height, colour, marble-type, etc.) are so common that we can be certain that aesthetic considerations as well as practical ones (statics) were indeed applied. We can even find old marble being painstakingly recut and fitted when it would have been much easier to use readily available limestone blocks. At Milas, the Firuz Bey Camii (1374) uses carefully-laid courses of old polished marble. Blocking off the side pillars of the portico are marble “transennae,” presumably re-cut from classical slabs. One has been patched—so perhaps from an earlier mosque. At Miletus, the Isa Bey Mosque is made from beautiful marble veneers of various sizes and shapes painstakingly jigsawed together. The classical site could surely have supplied a sufficiency of regular if less polished blocks, so the exercise is certainly one of beautification. The 15th-century A. Gazi Camii at Eski Cine also balances old marble blocks aesthetically, and re-uses reliefs, lintels and windows.

²¹⁰ Di Cosmo, Leonarda, “Il reimpiego nella chiesa di Santa Maria di Siponto,” in Mazzei, Marina, ed., *Siponto antica*, (Foggia 1999), 309–15.

²¹¹ Di Cosmo Leonarda, “Casi di reimpiego nella chiesa di S. Maria Maggiore di Siponto,” *Archeologia Classica* 48, 1996, 193–216; see 197: the 16 columns in the Romanesque crypt are of the same marble (cipollino greco ordinario) and about the same dimensions (2.03m high), and so probably came from the same building.

²¹² Del Bufalo, *Marbres de couleur*, 85.

²¹³ E.g. Christern, J., “Der Aufriss von Alt-St-Peter,” *Römische Quartalschrift für christenliche Altertumskunde und Kirchengeschichte* 62 1967, 133–83. 172–5 for the aesthetics of the layout of the nave and some of the aisle columns, known from sketches and written accounts. Cf. generally Onians, John. *Bearers of meaning: the classical orders in Antiquity, the Middle Ages, and the Renaissance*, (Cambridge 1988).

Nearness to Roman remains could provide both materials and inspiration.²¹⁴ For example, the splendour of the Norman Duomo at Canosa di Puglia was surely intended to replace the existing splendid ruins which have been dug, such as the “Cattedrale di S. Pietro” (really the basilica of S. Leucio), which is central-plan with four symmetrical apses. This had fine floor mosaics, and an atrium paved with large slabs of limestone, perhaps imitating the marble slabs to be seen in Rome in the 2nd to 6th centuries.²¹⁵ Five proconnesian columns with Ionic capitals remain in place.²¹⁶ In size (nearly six-metre monoliths) and fittings (it presumably had marble wall veneers), the Norman Duomo seeks comparison with Bosra, Rusafa, S. Lorenzo at Milan, and Ochrid. Re-use-wise these links with the glorious local past also fit well and, for Raffaella Cassano, are used to express the new political and religious language of the Norman rulers—not to mention their aesthetics and sense of the glorious history of Canosa.²¹⁷ Vergara makes a similar point for the lavish materials in the crypt at Otranto (whose only rival for quality is perhaps S. Marco, Venice), seeing the marble as a symbol of prestige and authority, and hence a political statement.²¹⁸

One Christian invention selected for the display of the choicest marble was the ciborium, or altar canopy, the very focus of the church interior. Conveniently, this usually needed no more than four columns of modest size (although the one in Old S. Peter’s, seen in the fresco in S. Martino ai Monti, had eight), and its entablature could become a field for large inscriptions. In S. Nicola at Bari (1090–1110), for example, the entablature carries a forty-centimetre-high inscription, and the uppermost step of the podium a smaller but much longer one. These complement the 6m+ shafts of the nave, some of them doubled. Another focus of sumptuous marble was often the pulpit (or

²¹⁴ —And a name: San Pietro alle Marmi at Eboli (Salerno), of 1090ff., is marble-rich from the castrum of Eburum.

²¹⁵ Volpe, Giuliano, et al., “Il complesso episcopale paleocristiano di San Pietro a Canosa,” *Archeologia Medievale* XXX 2003, 107–64; see 136: atrium paved with large slabs of limestone—perhaps imitating marble slabs popular in Rome II–VI centuries; and cf. Tomb 53 fig. 19 covered with two slabs of marble, perhaps from a Roman podium.

²¹⁶ Pensabene, *Contributo*, 87ff.

²¹⁷ Cassano, Raffaella, ed., *Principi imperatori vescovi: duemila anni di storia a Canosa*, (Venice 1992), 712–19 for the Roman mausolea; 840ff. for the churches; quote from 918.

²¹⁸ Vergara, Pasquale, “Elementi architettonici tardoantichi e medioevali nella cripta della Cattedrale di Otranto,” *Riv. Ist. Naz. d’Archeologia e Storia dell’Arte* IV 1981, 71–103.

pulpits—many churches had two facing each other across the nave), which the congregation perforce viewed as they listened to the sermon. Several post-Millennium examples will feature later in this book.

*Church façades and campanili*²¹⁹

As far as is known, there was no special sculptural (as distinct from mosaic) decoration accorded to church façades in the Early Christian period, because the entrance to the church was but a single feature of the atrium. The provision of lavish façades seems to have begun in the 9th century, perhaps in Pavia, and conceivably inspired by Armenian models. It is apparently only after the Millennium that the façade becomes the field for sometimes extravagant display of sculpture, old marble included.

Although the history and development of campanili are contentious, and we have little information before the Millennium, such elevated structures often display re-used marble. Most of the campanili with insertions we see today are not earlier than the 10th century, and they sometimes seem to reflect local fashions, or perhaps just the typologies of what was available locally. Gaeta (Latina) is a good example, with over 80 decorated blocks (including several elements of a Doric frieze) and inscriptions, plus squared blocks, all placed for maximum visibility, and all perhaps local in origin.²²⁰ At Melfi, the decoration includes figured and non-figured stelae, inscriptions, and lions.²²¹ If triumphal arches were the “sculptural coat-hangers” of the Romans, then campanili often filled this function in mediaeval Italy.

One good reason for using marble in campanili is to provide solid as well as good-looking foundations. This happens at Caserta Vecchia, where antique blocks (some upside down) are used as the visible footings, and a fine Roman bas-relief block of shields and trophies is similarly

²¹⁹ See also the chapter on Italy for more on the display of antiquities on churches and their campanili.

²²⁰ RM: Mesolella, Giuseppe, “Sul campanile della cattedrale di Gaeta in occasione dei nuovi restauri,” *Spolia, Journal of Medieval Studies*, on the web at <http://www.spolia.it/>.

²²¹ *Todisco, L., “L’antico nel campanile normanno di Melfi,” *Mélanges de l’Ecole Française de Rome. Moyen-âge, temps modernes*, 99 (1987), 1, 123–58. See 149: “la rivitalizzazione di antichi blocchi iscritti... si giustifica infatti nell’interesse, ricco di implicazioni ideologiche, da parte dei Normanni per il retroterra culturale delle regioni conquistate, e quindi di quelle romane dell’Italia meridionale.”

located.²²² At Telese (Campania), there is a monumental inscription in the base of the mid-12thC campanile.²²³ Enormous antique blocks form the podium, including one with very large lapidary capitals VNAL; further up, the tower is decorated with horizontal bands of white limestone and travertine pieces and, flanking the window on the second storey, are two large blocks, one of which has a bas-relief of an animal pursued by a man. Above these, and forming the division between the second and third storeys, are fragments of Roman cornice—but only on the principal façade.²²⁴ In cases where the surface has been degraded (as in the fine relief block on the campanile at S. Angelo in Formis) could this have been done for apotropaic reasons?

Christian mausolea

It is a truism that we know most about past people via the rituals of death and burial, and the Romans often treated commemoration as the occasion for monumentalism. Funerary structures adorned many of the great roads of the Empire, providing stylistic inspiration and material,²²⁵ and leading directly to the early free-standing mausolea of saints. In earlier centuries the tombs or even full-scale mausolea of important people were often clustered together around a funerary church containing the remains of one or more saints. Eventually prestigious burials were incorporated into churches, where the endowed chapel served the rich, while free-standing mausolea became a rarity. The surviving exception (there must once have been many more) is the Tomb of Bohemond at Canosa, nestling under the southern flank of a large Duomo. Apart from representations of the Holy Sepulchre, it is perhaps the only marble-sheeted mausoleum built in the West during the Middle Ages (as distinct from a sarcophagus-and-columns shrine within a church). Conceivably it was built by craftsmen from Antioch.²²⁶ Both church and mausoleum have domes, and Epstein would like to see both buildings as inspired by the Holy Apostles in Constantinople.

²²² D'Onofrio, M., *La cattedrale di Caserta Vecchia*, (Rome 1974), fig. 117.

²²³ Cielo, L.R., *La cattedrale normanna di Alife*, (Naples 1984), fig. 16.

²²⁴ Cielo, L.R., "Il campanile della cattedrale di Telese e la tradizione architettonica campana," *Samnium* LI, 1978, 71–95; structure and materials, including re-use, are described at 76–80.

²²⁵ Von Hesberg, Henner, & Zanker, Paul, eds., *Römische Gräberstrassen: Selbstdarstellung, Status, Standard*, (Munich 1987).

²²⁶ Calo Mariani, "Sulle relazioni artistiche fra la Puglia e l'Oriente latino," 47.

The Duomo is a harbinger of S. Marco in Venice, the mausoleum as “an atrophied cross-in-square church”—that is, Byzantine again, for she rejects any Muslim influences. Neither comparison works well because, while we can agree that “Bohemund certainly would have had an opportunity to visit the Holy Apostles in Constantinople and its attendant shrines to imperial greatness,”²²⁷ the conformation of the Duomo and the tiny size of the mausoleum leave little scope for such influence. Much more likely as sources (for styles and marble) are the Roman tombs still visible at Canosa, such as the Mausolei Bagnoli and Barbarossa, the Tomba Casieri, and the earlier churches. Nevertheless, Boemund would also have seen plentiful mausolea small and large during his crusading (plenty were built well before his death),²²⁸ and surely the inscription around the drum of the dome is an Islamic rather than a Christian idea. Again the reticence of the monument, without rhetoric (except in the inscription!) or sarcophagus, is arguably Islamic, although Pisan inspiration has been suggested.²²⁹ Inside, there is only one word, and that on a floor slab: “Boemundus.”

Mosque and madrasa exteriors and minarets

Typologically, from the exterior mosques are often difficult to separate from colleges, schools or monasteries. They often enclose mausolea, so the unwieldy term “funerary-religious complex” can be useful. In this way the Islamic injunction against showy burial was sidestepped. “Observe how we have been made to exit vast palaces so as to lead us to narrow tombs!” reads the foundation inscription on the far-from-narrow mausoleum in the Hospital of Sultan Kaikawus I (d.1219).²³⁰ The majority of such structures from the origins to the end of the Middle Ages²³¹ did not have decorated exteriors, but conspicuous exceptions

²²⁷ Epstein, Ann Wharton, “The date and significance of the Cathedral of Canosa in Apulia, South Italy,” *DOP* 37 1983, 79–90; quote from 87.

²²⁸ Hillenbrand, *Islamic architecture*, 253ff. for a typological survey.

²²⁹ Testi Cristiani, M.L., “Sul Mausoleo di Boemondo a Canosa,” in Cardini, Franco, et al., eds., *Boemondo. Storia di un principe Normanno*, (Martina Franca 2003), 107–16; see plates 9–10 of elevation and plan at drum level for the disparate mix-and-match nature of the marble sheets re-used.

²³⁰ Berchem, Max von, *Matériaux pour un corpus...III, Asie Mineure, I: Siwas, Diwrigi*, (Cairo 1917), cat. 2.

²³¹ Hillenbrand, Robert, *Islamic architecture: form, function and meaning*, (Edinburgh 2000), studies monuments by type, from mosque and minaret to mausoleum and palace, etc.

are Kairouan, Córdoba (much over-restored),²³² and a large number of Mamluk mosques in Cairo, all of which use old marble in various forms, though generally only for monumental porches, and sometimes around windows. Kairouan used monoliths for a pseudo-triumph-arch entrance doorway, Córdoba for displaying sections of opus sectile marble decoration, and marble window screens, and Cairo and Aleppo followed Damascus in developing exquisite cut-stone and cut-marble doorways of sometimes bewildering elaboration.

Marble veneer appears on the exterior of some of the great Ottoman mosques (such as the Sultan Ahmet in Istanbul),²³³ perhaps in homage to Haghia Sophia. The exterior of the Dome of the Rock (an honorary mosque for our present purpose) displayed both veneer and mosaics, both of which were old.²³⁴ The mosaics were replaced by tiles during the reign of Suleiman the Magnificent. One account mentions that the exterior of the Al-Aqsa was veneered in marble, by whom is unknown, but not in its original build.

The Rum Seljuks are exceptional in that they sometimes provided the exterior walls of their mosques with ancient marbles. This suggests that they studied and assimilated some aspects of Armenian church decoration. The Sahip Ata Mosque at Konya (1258) has a splendid entrance wall, founded on large old blocks incorporating Christian transennae, while the minaret reposes on a large pagan sarcophagus the Medusa-heads of which are still easily readable—that is, they have not been hammered as we might expect for non-Seljuk religious buildings. The Esrefoglu Mosque (1297–9) at Beyshehir has a philosopher sarcophagus for ablutions, the heads of which have probably been knocked off, rather than worn away. At Antalya, their city walls, celebrated in plentiful inscriptions, incorporated the Arch of Hadrian.

Damascus offers a rare example of a classical entablature re-used in an Islamic building without being recut. This is the Maristan of Nur Al-Din (1154), which Raby regards as intentional from a man with “a

²³² *Galdieri, Eugenio, “Sull’architettura islamica in Sicilia lamento di un architetto ignorante sopra una architettura inesistente,” *Rivista degli Studi Orientali* 74 2001, 41–73, fig. 2.

²³³ Theis, Lioba. “Über die Spolienverwendung an der Sultan Ahmet Moschee in Istanbul,” *Eothen. Jahreshefte der Gesellschaft der Freunde Islamischer Kunst und Kultur* 2/3 1991/92, 81–88.

²³⁴ On the exterior, Wilson, *Ordnance Survey*, 22: “the greater portion is a patchwork, in which old material has been used up, not, however, without some attention being paid to the design.”

keen sense of the significance of style and appearance,” as well as of history.²³⁵ It is difficult to see this pediment as an kind of trophy, but that is not the case with the Byzantine marble tables discussed by Flood²³⁶ which had been re-used in a Seljuk building (perhaps Tutush’s madrasa: they are inscribed with the names and titles of Abu Sa’id Tutush) before finding their current, 16th-century home. In the Mezquita at Córdoba, there survives a Visigothic altar, but it is not incorporated into a mihrab, so perhaps was not viewed triumphally.²³⁷

It has been argued that the Lighthouse of Alexandria was an inspiration for the Islamic minaret.²³⁸ Like Christian campanili, from which they might well derive, Moslem minarets often use old blocks in the foundations for structural reasons, and frequently include older monoliths and capitals in their design. But that design is rarely conspicuous, and almost never “overbalanced” by the insertion of old friezes or other decorations, an exception being the minaret-tower at Kairouan, which also has a relief frieze as lintel to its entrance door, as well as several inscriptions. Birgi (at the foot of Bozdag, near Ephesus) has numerous classical materials in Ulu Camii’s minaret. The strangest, perhaps, is the 15th-century Seyh Muattar Mosque in Diyarbakir, where the minaret stands on four columns, tall enough to walk between.

Mosque and madrasa courtyards and interiors

Most large mosques and madrasas have courtyards which, together with the prayer halls, are where the majority of older elements (columns and capitals and, fitfully, bases) are displayed, often above a marble pavement. Because such structures are large, the numbers of old columns employed outdistances anything seen in the West after the Early Christian basilicas of Rome such as Old S. Peter’s, or S. Paolo fuori le

²³⁵ Raby, Julian, “Nur al-Din, the Qastal al-Shu’Aybiyya, and the ‘classical revival’,” *Muqarnas* 21 2004, 289–310: see 299–300.

²³⁶ Flood, Barry, “The ‘altar’ as mihrab: byzantine antiquities from a Seljuq mosque in Damascus,” at the Conference: *From Roum to Rumi: cross-cultural encounters in the art of medieval Anatolia*, University College Dublin, October 2000; summary on web at <http://www.ucd.ie/classics/r2r2000.htm>. Ibid., “The medieval trophy as an art historical trope: Coptic and Byzantine “altars” in Islamic contexts,” *Muqarnas* 18 2001, 41–72.

²³⁷ Collins, Roger, *Spain: an Oxford archaeological guide*, (Oxford 1998), 121.

²³⁸ Rodríguez Estévez, Juan Clemente, “Alminares almohades,” in Beneito, Pablo, & Roldán, Fátima, eds., *Al-Andalus y el norte de África: relaciones y influencias*, (Seville 2004), 189–222: the term *alminar* is from the Arabic “manara,” meaning “tower of light, lighthouse.”

Mura. Much Christian material is re-used in these courtyards, such as the porphyry quincunx at the entrance to the Suleymaniye courtyard: would worshippers know this was once Christian, and trampling it therefore a symbol of the triumph of Islam? Like the mosques which they generally incorporate, madrasas are often lavishly decorated with marble, with fine examples in Damascus, Aleppo and Cairo.²³⁹ Late examples survive in Tunis,²⁴⁰ presumably the descendants—with their old materials—of earlier parents. Both often feature an ablution fountain, frequently also supported on old columns.

We are very short of hints about how the Middle Ages viewed their monuments, especially their re-used marble, but we are helped by a document from Kairouan from about the turn of the Millennium. Via one of the legal decisions of Al-Qabisi (d.1012), this addresses an aesthetic dispute, answering a question from people from Qastilya (in the Maghreb, near Gafsa). They wished to rebuild their mosque, and rearrange the columns harmoniously, but were not in agreement on how this might be done. Al-Qabisi dealt with this by instancing the neighbouring and ruined mosque of Zarguna, and stipulated that the intentions of the founder should be respected, and no columns moved elsewhere.²⁴¹

City walls and public buildings

In the West, mediaeval city walls often have their foundations dug over ancient cemeteries, and therefore incorporate funerary antiquities, whether as robust footings (Bordeaux),²⁴² or with elements displayed on walls or their gates (Spello, Milan, Pavia, Narbonne, Langres). Both inside and outside Rome, wall-building (just like church-building) acted as an affirmation of the value of the city, and “as an object of imperial munificence, both municipal and private.”²⁴³ Marazzi, for example, has studied Rome’s Leonine Wall, and those of Capua (by Count Landone

²³⁹ Golvin, Lucien, *La madrasa médiévale*, (Aix en Provence 1995); 62–4 for the Al-Zahiriyya (1277) at Damascus; 81–3 for the Al-Firdaws at Aleppo; 131–6 for the Sultan Hassan at Cairo; 143–52 for an overview of the various decorative elements in Cairene madrasas.

²⁴⁰ Binous, *Ifriqiya*, 57, 86–9: the Madrasa al-Bachiya, built 1752, and the Madrasa Slimaniya, built 1754.

²⁴¹ Lagadère, *Histoire et société en occident musulman*, 212.

²⁴² Espérandieu, *Recueil*, II.121, cats 1062ff.

²⁴³ *Bonetto, Jacopo, *Mura e città nella Transpadana Romana*, (Portogruaro 1998); cf. pp. 179ff., plus bibliography divided by city.

and Bishop Landolf) and Benevento (by Prince Arechis), in the period from the end of the 8th to the middle of the 9th century. He sees in them not only symbolism which, borrowing Delogu's words, is a kind of urban promotion, but also "la sostanziale autocefalia dei poteri signorili della Longobardia meridionale rispetto al contesto del nuovo impero di Carlo Magno."²⁴⁴ At Benevento, this is emphasized by the prominent use of old marble in large quantities (such as a colossal theatre mask and a Roman figure in high relief, given a Longobard head, on the Duomo campanile) and, of course, by the incorporation of the Arch of Trajan into the enceinte. Thus may architecture be represented as an expression of political power as well as of urban renewal. Such a statement of confidence went hand-in-hand with an increase in size, once again predicated on earlier models.²⁴⁵

In the East circumstances are similar. The enormous quantities of ancient blocks in the citadel walls at Ankara might also be intended to deliver a similar message—but it is not known when they were constructed. The walls at Apollonia ad Rhyndacum (near the Sea of Marmara) are Byzantine, and embellished with decorative reliefs and architectural blocks, all neatly laid and displayed—easy to accomplish, of course, because the ruins of the ancient city are all around.²⁴⁶ The 13th-century additions to the walls of Diyarbakir (ancient Amida, SW Turkey), and still standing, display contemporary sculpture as well as re-used pieces. Unfortunately the Seljuk walls of Konya²⁴⁷ were torn down in the 19th century and, although it is likely that some of the old blocks now reside in the Archaeological Museum (and two illustrations of the walls survive), not all the pieces have been preserved. We know from 19th-century drawings that these included a nude male marble statue—an unusual addition to any wall, let alone an Islamic one. The Seljuks perhaps took their cue from the decorated gates of Constantinople and Nicaea, or perhaps from triumphal arches.

²⁴⁴ Marazzi, F., "Le 'città nuove' pontificie e l'insediamento laziale nel IX secolo," in Francovich R., & Noyé G. eds., *La storia dell' Alto Medioevo italiano (VI–X secolo) alla luce dell'archeologia*, (Florence 1994), 251ff.

²⁴⁵ Ward-Perkins, Bryan, "The towns of northern Italy: rebirth or renewal?" in Hodges, Richard, & Hobley, Brian, eds., *The rebirth of towns in the West AD 700–1050*, (London 1988), 68, 16–27, with useful figs 7 & 8 showing relative sizes of churches.

²⁴⁶ Although destruction was under way when Texier visited in the 1830s: Texier, *Asie Mineure*, 141–2: "Il faut que les habitants de la ville moderne se soient attachés à détruire les inscriptions; car les anciens Apolloniates mettaient le plus grand soin à confier au marbre les faits notables de leur cité."

²⁴⁷ dvd_konya_walls.doc.

The display of three-dimensional statues (excluding the ex-cemetery examples on city gates noted above) was rare in the Middle Ages, the very idea of their use perhaps needing to wait for the public sculpture of the 15th-century Renaissance. But we find Cyriacus of Ancona recording the erection at the entrance to Thasos' port of a marble statue by Prince Francesco Gattilusio, and we may assume that this was indeed a classical statue, since Cyriacus also records there an inscription to Gattilusio. This proclaimed that the citizens "with all reverence saw to the restoration of the illustrious island of Thasos and its glorious city, fallen to ruins by the destructive effects of the ages"—two eminently "classical" actions on the part of the ruler and his people.²⁴⁸ Could this have been the original period of insertion of Roman heads and a bust into a 19th-century house on Odos Pavlou Mena, in the main town of Limenas?

Fortress walls and gates

Mediaeval fortresses were often decorated either in their masonry, with bas-reliefs, or with inscriptions, since they had a political dimension equal to that of city walls.²⁴⁹ Bosra (Syria), for example, has 13 inscriptions dating from 1089 to 1241, and plentiful antiquities are displayed in the outer walls.²⁵⁰ On erstwhile classical sites, small fortresses sometimes employ old materials artistically, as in the Byzantine structure at Aphrodisias, or at Stratonikeia (near Mugla). For topographical reasons fortresses were often re-built in the same location, hence often partly with existing materials and taking enthusiastic note of previous techniques.²⁵¹ Some of these we might term "strength-through-beauty" features. These include column-shafts used to strengthen the integrity of the wall and sometimes to prevent sapping (as in Alaeddin Keykubad's Red Tower at Alanya; or Anamurium, further east); suavely drafted masonry presenting a firm face to missiles; or lead to lock the often huge

²⁴⁸ Cyriacus: *Later travels*, Diary II 1444, 109.

²⁴⁹ Frey, Jon Michael, *Speaking through spolia: the language of architectural reuse in the fortifications of late Roman Greece*, PhD, (UC Berkeley, 2006), chaps 4–6 for Aegina, Sparta and Isthmia.

²⁵⁰ Yovitchitch, Cyril, "La citadelle de Bosra," in Faucherre, Nicolas, Mesqui, Jean, & Prouteau, Nicolas, *La fortification au temps des croisades*, (Rennes 2004), 205–19.

²⁵¹ Vannini, Guido, & Nucciotti, Michele, "Fondazione e riuso dei luoghi forti nella Transgiordania crociata," *III Congresso di archeologia medievale*, I, 520–5, on the web at <http://192.167.112.135/NewPages/EDITORIA/SAMI3.html>

blocks together.²⁵² It bears pointing out that Italy like other countries further east suffered devastating earthquakes (such as in 1125),²⁵³ and it may be wondered whether attention to solid building with old blocks was in part the result. Powerful projectiles thrown by sophisticated and accurate artillery no doubt further encouraged solidity in the years after the Millennium, when many fortresses were rebuilt or refurbished to withstand the battering of mangonels and trebuchets, with their heavy (often 50kg-plus) stone or marble projectiles. Once again, therefore, we should beware of attributing antiquarian or ideological aims to what could be just convenient practicalities. In most fortresses what is on-site obviously is what gets used; and there are several connoisseur-like mediaeval assessments of “historic” fortifications and also buildings where the “recupero di materiali pregiati e da costruzione, provenienti dai grandi complessi monumentali” is a feature of the final effect.²⁵⁴

Palaces in Christendom

We may imagine that mediaeval palaces looked like a cross between those on the Palatine in Rome, and the “Palace” of Diocletian at Spalato, or the octagon at Thessaloniki.²⁵⁵ But we should probably be mistaken, because descriptions are scarce, although the palace at Salerno has been partly dug, as has that “of Theoderic” at Ravenna, and we know of an inscription for Corteolona. It is conceivable that Renaissance palaces continue a mediaeval tradition of the display of antiquities (especially since these have sometimes survived displayed on or around municipal buildings, such as the Campidoglio in Rome, or Padua).²⁵⁶ And antiquities were certainly gathered into collections in the

²⁵² Sauvaget, J., *Les perles choisies d'Ibn Ach-Chihna. Matière pour servir à l'histoire de la ville d'Alep*, (Beirut 1933), 64 where Aleppo's Great Mosque minaret “joignit les pierres avec des crampons de fer et du plomb.”

²⁵³ Described in detail in *Falconis Beneventani Chronicon* RIS V, 101 for 1125: “Terremotus vero sic terribilitum accidit, quod Turres, Palatia et inversa civitatis aedificia concussa tremebant...muri quoque civitatis prostaverunt.”

²⁵⁴ Vannini, Guido, & Nucciotti, Michele, “Fondazione e riuso dei luoghi forti nella Transgiordania crociata la messa a punto di un sistema territoriale di controllo della Valle di Petra,” in Fiorillo, R., & Peduto, P., eds., *III Congresso Nazionale di Archeologia Medievale*, (Florence 2003), 520–5.

²⁵⁵ Vickers, Michael, “Observations on the octagon at Thessaloniki,” *JRS* 63 1973, 111–20: its walls were covered with white marble and red & green porphyry, on a layer of plaster, and fixed with iron nails.

²⁵⁶ *Il Veneto nel medioevo*, I, 223: stele of Henry and his wife Berta: basrelief above the entrance to the curia vescovile, antique with a mediaeval inscription above the figures.

Quattrocento, which we know only from drawings.²⁵⁷ One late survival shows what earlier collections might have looked like. The extravagant decoration of Palazzo Matteo di Giove in Rome (1598–1616) contains a lot of antiquities, and of restored antiquities—but also a good number of factitious pieces.²⁵⁸ The owner seems to have started out with a few antiquities of a particular type, had a suitable setting designed, and then had works made very much in the antique spirit (for which some documentary evidence survives, in some cases naming the contemporary sculptor)—and then placed them high enough to fool. Two examples are the funerary tondi (from the centre of sarcophagus fronts) and the multi-bust funerary stelae.²⁵⁹ Again, it is just possible (if we can take Palazzo Matteo di Giove as any kind of guide) that multi-bust funerary reliefs may equally have been scarce in the Middle Ages—and hence underline how such rare works could indeed be installed as trophies at prestigious locations. Several antique pieces are still to be seen in mediæval tower-houses in Rome, most conspicuously in the large palazzo at Via di Portico di Ottavia, where the antiquities are large-scale.

Palaces in Islam

More is known about the decoration of Islamic palaces, largely because so many of them were built, and hence descriptions and some fittings survive. The latter were probably shunted from old structure to new structure, since most such palaces do not seem to have long survived their owner, and certainly not their owner's dynasty. City palaces have fared particularly badly, with the partial exception of Amman. They were usually dismantled to feed new mosques, so that we have only descriptions of—for example—the Fatimid palaces in Cairo,²⁶⁰ or the palaces in Baghdad, with their marble baths and explicit mosaics.²⁶¹

²⁵⁷ Christian, Kathleen W. "From Ancestral Cults to Art: The Santacroce Collection of Antiquities," in Settis, Salvatore, ed., *Senso delle rovine e riusi dell'Antico*, *Annali della Scuola Normale Superiore di Pisa* 2002, 255–72.

²⁵⁸ Guerrini, L., *Palazzo Mattei di Giove: le antichità*, (Rome 1982) for a description of the present layout.

²⁵⁹ *Ibid.*, cats 169–72, 112, 173–8.

²⁶⁰ Hauteceur, *Mosquées du Caire*, 140: in 1369, two immense white marble columns were found on the site of the Fatimid palaces, and Sultan Chaban II took them for his madrasa near to the citadel, their transport hymned by the poets.

²⁶¹ Rubiera Mata, *Arquitectura en la literatura arabe*, 97–103, Al-Makkari: "Habia pilones de mármol de bonita forma... un largo pasillo todo el de mármol purísimo su suelo tenia dibujos calizados con piedras rojas, amarillas, verdes y doradas, todas ellas de cristal tenido con color rojo y amarillo; el tenido en verde dicen que es un procedimiento que

Scraps of fittings have, however, survived from Samarra (9thC, north of Baghdad). Although stucco was the main decoration (the Romans had used it a lot,²⁶² and perhaps examples were seen locally), old marble veneers and monoliths were also employed, and marble mosaic, of which there are excavated remains in the Türk ve Islam Museum in Istanbul. Just as Aleppo had a marbled palace in the citadel, so did Diyarbakir, of Seljuk date, with tiles, glass mosaics, and white and coloured marbles.²⁶³

In Syria, a series of “desert palaces” survive, but the typological sources are confused. They often seem to be hunting lodges, but some look like the late-Roman fortresses on which they were modeled, and the materials of which they sometimes re-used.²⁶⁴ Mshatta’s sculpted stone façade is in Berlin. The Qasr Al-Hayr palaces (East and West, 728ff.) were sumptuously decorated, but any marble columns and veneers have long since been robbed out,²⁶⁵ leaving little in place to remind us of what Hillenbrand calls “la dolce vita.”²⁶⁶ Some of these were decorated with simple mosaic floors, and it remains a puzzle that no earlier pavements seem to have been lifted complete and re-used—although the Umayyad Qasr Al-Hallabat (Jordan) has figured mosaic floors which might easily be Byzantine and even (in parts) ecclesiastical.²⁶⁷ Further West, Madinat Al-Zahra (near Córdoba) is the sole surviving witness to palatial magnificence and huge size, although we know it had many rivals. And with the city of Granada founded on a Roman settlement, the Alhambra might well have had an earlier incarnation, for it has manifold connections with Rome, Syria and points even further east.²⁶⁸

viene de los bizantinos, y el dorado es cristal revestido de oro. El dibujo era bellissimo y formaba diferentes figuras que realizaban el acto sexual...”

²⁶² Adam, *Roman building*, 224–6.

²⁶³ Aslanapa, Oktay, “Erster Bericht über die Ausgrabung des Palastes von Diyarbakir,” *Ist Mitt* 12 1962, 115–28.

²⁶⁴ Kennedy, David, *Gerasa and the Decapolis: a ‘virtual island’ in northwest Jordan*, (London 2007), 103 for a list.

²⁶⁵ Greenhalgh, *Islam & Marble*, 28–9.

²⁶⁶ Hillenbrand, R.W., “La dolce vita in early Islamic Syria: the evidence of later Umayyad palaces,” *Art History* 5/1 1982, 1–35.

²⁶⁷ Bisheh, Ghazi, “From castellum to palatium: Umayyad mosaic pavements from Qasr al-Hallabat in Jordan,” *Muqarnas* X, 1993, 49–56.

²⁶⁸ Grabar, Oleg, *La Alhambra: iconografía, formas y valores*, (Madrid 1980), 103ff.; 145f. for the 11thC Ibn Gabirol’s poem hymning the Alhambra, including its marble: “están pavimentadas de mármol y de pórfido.”

There were certainly palaces in marble-rich Carthage that could have offered models. A 12th-century traveller writes of palaces called the “Two Sisters,” built only of marble.²⁶⁹ A site at Firdaws (Firdaws means Paradise) north of Sousse, was described in the 1860s. This showed “signs of apparently late Roman occupation. A palace at Baghdad had the same name,²⁷⁰ and a madrasa at Aleppo. It is, therefore, possible that at Grasse, as at Carthage itself, the Vandal kings took over major Roman buildings and adapted them for use as royal palaces”²⁷¹—and therefore perhaps a model for the Moslems who arrived over a century later.

Islamic hans etc.

Although all land trade routes had way stations, the hans built by the Seljuks display not only a clear interest in antiquities, but indeed in figured ones. Their hans were built to encourage and protect trade, and are found each one a day’s travel apart on a variety of routes in Anatolia.²⁷² They are sometimes elaborately decorated (Incir Han, Karatay Han, Saripata Han, Sultan Han at Aksaray—this last the star of them all). Several include old decorations, but found nearby rather than trekked in from afar, such as Incir Han (from the ruins of Cretopolis). Figured reliefs were employed at Devi Han and Kadin Han. Both of these re-use substantial Byzantine blocks, the latter including one showing two women from an unnamed but local antique site. Sarapsa Han has a Byzantine relief frieze (part of an entablature or jamb) atop the mihrab niche in its small mosque. Sultandaj has a splendid stone muqarnas porch, with a classical frieze as lintel. Sadettin (or Zazadin) Han (dated 1236–7 from its inscription) uses many Byzantine items prominently displayed in its external façade, just like the next in the chain, Obruk Han, which has re-used columns—all surely from a nearby

²⁶⁹ Fagnan, *Afrique septentrionale*, 21–2.

²⁷⁰ And cf. *Bar Hebraeus*, 133: Mu’tasim [caliph 833–42] “when he was firmly established in the kingdom, he began to build magnificent buildings for his abode, and he constructed lakes of water and paradises for his pleasure.”

²⁷¹ Barnwell, P.S., *Emperor, Prefects & Kings: the Roman West, 395–565*, London 1992, 119–20; and a palace in Carthage was described by Luxorius (520s?) as having a sumptuous marble audience chamber.

²⁷² Details on Katherine Branning’s splendid site at <http://www.turkishhan.org/>.

church.²⁷³ For staging reasons, nearly all hans were purpose-built, but it may have been Alaeddin Keykubad who refurbished the Roman theatre at Perge as a waystation.²⁷⁴ Or was it perhaps a palace? One traveller describes such a structure at Antalya, where “are still to be seen ruins of porticoes supported on marble columns, and fountain basins exquisitely decorated.”²⁷⁵

Islamic mausolea

One area where Islam at first left the field free for the Christians was in the building of funerary structures. The operative words are “at first,” because early and traditional Islam displays an orthodoxy eschewing funerary magnificence. A scholar’s response in 11th-century Kairouan answering a man who wished to sell the stones of a tomb he has built in a cemetery reproved him: “Such buildings are ostentatious and of no use to the dead...nothing should be built above tombs which should have only a stele.”²⁷⁶ Something of this austerity seems to have spilled over into embarrassment for the over-elaboration of mosques. This may perhaps be sensed in an inscription on a pair of columns in the mihrab of the 13th-century Djami Djarrah at Damascus: the donor “has made anew these two columns, desiring Allah’s satisfaction. Oh Allah, Thou that hast put up the sky without columns and without help, pardon Thy slave.”²⁷⁷ But in fact the ostentation of palaces and mosques eventually spilled over into mausolea, which were to become an important element in the schemes of the Mamluks in Egypt, and then the Ottoman sultans in Turkey. In Islam, mausolea were at first reserved for saints, and then for rulers or the very rich (whose tombs were incorporated within colleges or mosques they endowed). As with saints’ tombs in Christianity, saints in Islam attracted much patronage,

²⁷³ Erdmann, Kurt, *Das anatolische Karavansaray des 13. Jahrhunderts* (Berlin 1961–1976), cat. 10: Kadin Han; cat. 28: Sadeddin Han, mostly Byz; cat. 29: Incir Han; cat. 34 Obruk Han; cat. 41 Devi Han; cat. 52: Zivarik Han.

²⁷⁴ Redford, Scott, “Thirteenth-century Rum Seljuq palaces and palace imagery,” *Ars Orientalis*, 23 1993, 219–36.

²⁷⁵ Brèves, M. de, *Relation des voyages de M. de Brèves, tant en Grèce, Terre-Sainte et Egypte, qu’aux royaumes de Tunis & Argel*, (Paris 1628), 23.

²⁷⁶ Lagadère, *Histoire et société*, 213; the scholar was Al-Qabisi (d.1012). Massignon, Louis, “La cité des morts au Caire,” *BIFAO* 57 1958, 25–79; see 31ff. for details of the interdiction.

²⁷⁷ Koran XIII.2. Herzfeld, Ernst, “Damascus: studies in architecture,” *Ars Islamica* XIII–XIV 1948, 118–38; see 127.

and were sometimes housed in structures incorporating a mosque. Likewise, although some structures were freestanding (cf. the Northern and Southern Cemeteries at Cairo), the tombs of the great and good often formed part of lavish multi-purpose complexes, especially in Mamluk Cairo, where the actual mausolea are usually much bigger and much more sumptuous than those of the Ottomans at Bursa or Istanbul, incorporating large quantities of coloured marbles. That of Sultan Hassan (1356–63) in Cairo is perhaps the grandest, and certainly one of the largest, lavishly endowed with marble—although the central cenotaph and its barrier rails are of wood, perhaps as an intimation of humility.

Painted marble in Western manuscripts: reliquaries and dreamed-up antiquities

An important marker for the gap between wish and fulfillment, especially in the Carolingian and later West, is provided by the extravagant marble structures frequently to be found depicted in manuscripts.²⁷⁸ A discussion of them appears here because they represent the “missing element” of mediaeval marble use which might just have been inspired by the classical remains in the landscape, extrapolated to an extravagance which is far from any reality. Such structures range from thrones and book stands to canon tables (usually as colonnaded porticoes) and complete buildings. This section therefore surmises that manuscript illustrations of buildings are echoes of desired full-scale monuments. But it can deal only with aspirations, because there is no evidence that any such designs formed models that were actually executed full-scale. Nevertheless, some of the metalwork reliquaries in church treasuries do indicate an aesthetic interest in classicism, and in the kind of regularity and indeed luxury so often missing from contemporary structures. The notion of triumph explicit in the tympana of many mediaeval basilicas, and deriving from pagan arches, finds its echo in Einhard’s famous triumphal arch, already mentioned. Known only from a drawing, this translated pagan into Christian triumph for ecclesiastical purposes, for a cross-stand. And since such depictions in manuscripts are classically derived, and accurate in essence if not in florid detailing, might they in any way echo ancient monuments surviving into mediaeval times? Certainly, there is a distinct aura in many church treasury items from

²⁷⁸ Heitz, *L’architecture religieuse carolingienne*, 201–22: “Architectures peintes et sculptées. Essai d’une iconologie architecturale carolingienne.”

the period of Charlemagne onwards suggesting large-scale works monumental architecture and sculpture which are reproduced in miniature. This applies to structures which make up shrines, as well as to the nearly free-standing holy figures, and arcaded representations of saints or apostles which decorate such shrines, and which surely derive from observation of ancient sarcophagi both pagan and Christian.

So can such manuscripts tell us anything about the transmission of classical forms? Or are the elaborate structures they delineate simply visions, like the frequent depictions of the Heavenly Jerusalem? We might pose a similar question about the taste for ivories, and their relation to the antique. Thus at Aachen, no doubt a spectator would admire the ivory panels which were let into the ambo, although their subject-matter could scarcely be further removed from the task of proclaiming the Gospel. As Oakeshott remarks, their use is perhaps “a commentary on the irrelevance of the subject-matter when a precious piece from antiquity was available”.²⁷⁹ We might view manuscript representations, ivories and reliquaries as examples of building with antiquities, even if only on paper. This offers a parallel to Francis Newton’s excellent suggestion that manuscripts in the library at Montecassino were themselves viewed as spolia in parchment and paint rather than marble. If this is the case, then we have chapter and verse on intention which translates easily to actual re-use of marble, and echoes the vision of a gorgeous marble-clad past to be seen in so many manuscripts. But again, where are the copious mediaeval studies of the antique that might be thought necessary to establish a connection between manuscripts and surviving buildings? The odd hint survives, for the antique was also studied and drawn in France. There are vague links between a manuscript fragment from S. Benoît sur Loire, which shows very antique-looking foliate friezes, and the choir pavement at S. Benoît, towards 1026, with various kinds of marble, plus red porphyry.²⁸⁰ But it is not known what part abbots Abbo (988–1004) and Gauzlin (1004–1030), with their interest in antique culture, may have played in such constructions. Furthermore, so many manuscripts showing fanciful marbled buildings have survived, that surely we could

²⁷⁹ Oakeshott, Walter, *Classical inspiration in medieval art*, (London 1959), 74.

²⁸⁰ Brandt & Eggebrecht, eds., *Bernward von Hildesheim*, entries V-6 & V-36. Mortet, *Recueil*, 34: “Chorum psallentium quoque pulcherrimo marmorum compsit emblemata, quae asportari jusserat a partibus Romanic.”

expect an equivalent survival of drawings of actual antiquities, were it the case that any link at all exists between them.

But the relationship between manuscripts, small-scale metalwork and ancient monuments is difficult to determine. The same can be said for mosaic representations of buildings.²⁸¹ The problem revolves around the dearth of sources. Are the very antique-looking miniature figures on mediaeval metalwork (such as the pied de croix in S. Omer) inspired by antique originals and, if so, why is there no trace of those sources? The columned fountains and other marble architecture shown in several Carolingian manuscripts are a vision of antique splendour—but are they more than just a vision? Nothing similar survives, or is suggested by archaeology. Many Romanesque reliefs, such as those on the façade of S. Pietro at Spoleto, look as if they are imitating Roman sarcophagus reliefs (in this case with a horseshoe arch and blank arcades turning the centrepiece into the echo of a mihrab). Is this because, like mediaeval reliquaries, they are indeed directly inspired by antique models? More study is needed, but for the present only Nicola Pisano seems to invite a deliberate comparison with the source he used, not many metres away.

Conclusion

Four conclusions follow from the above overview, the first of which is obvious, but needs stating. The Middle Ages was simply not interested in moving and reconstructing Roman buildings. They had Vitruvius' text²⁸² and even made illustrations for it,²⁸³ but their interest in it was academic. On-the-spot conversion into churches or palaces is sometimes practised. It is therefore easy to demonstrate how the re-use of Roman marble produces styles which do not often look Roman, because the above listings have demonstrated that the Middle Ages makes use of only selected Roman structural elements. This leads to the second conclusion, namely that our builders were discriminating. Hence, and remembering Conan Doyle's dog that did *not* bark in the night, it is

²⁸¹ Piccirillo, Michele, & Alliata, Eugenio, *Umm Al-Rasas I: gli scavi del complesso di Santo Stefano*, (Jerusalem 1994), 199ff. for discussion.

²⁸² Schuler, Stefan. *Vitruv im Mittelalter: die Rezeption von "De Architectura" von der Antike bis in die Frühe Neuzeit, Pictura et Poesis*, 12. (Cologne 1999).

²⁸³ Heitz, Carol, *L'architecture religieuse carolingienne: les formes et leurs fonctions*, (Paris 1980), 138: Vitruvius from the Abbey of Murbach, now Sélestat MS1153.

as important to survey what items of marble were not used in order to highlight those which were. Such discernment (which will be demonstrated in subsequent chapters) could be simply practical, and to do with utility or transport difficulties; higher up the chain of meaning, it might signal iconographic and even political choices to which we are not privy and at which we can guess only by the exercise of much whimsical imagination and more footnotes. The third conclusion will be clear from various quantifications below, namely that Islam used more marble in its earlier centuries than (at least Western) Christians, and did so without any of the classical-tradition-renovatio baggage which sometimes entrances historians who follow the path of “*Roma quanta fuit, ipsa ruina docet*” toward over-interpretation of the available evidence. The final conclusion is that the Middle Ages prized marble as a material, for its strength, colour and beauty, arguably irrespective of any antique associations, and this fact will be demonstrated through the rest of this book.

PART THREE

SURVEYS OF THE ISLAMIC AND CHRISTIAN WORLDS

CHAPTER SIX

BYZANTIUM

Introduction

The lands of Byzantium in their hey-day boasted a larger proportion of ancient monuments than any in Western Europe, but she was to lose many during the Moslem advance, which involved military conquest but also an often peaceable takeover of resident populations from Syria to North Africa. These, if not Moslem or converted, paid extra taxes but were guaranteed freedom of worship. The Moslems thereby gained an economy that often was working well (including silk-workers and international traders), and could address the Byzantine Emperor for help when needed, as it supposedly was for the construction of the Dome of the Rock and the Umayyad Mosque in Damascus. This short chapter surveys the increasing use of old materials in Byzantium in the centuries after Justinian, prompted in part by a partial or even complete shut-down of quarries and, by comparison with his achievements, a downsizing of building projects and their decoration, perhaps balanced by a good knowledge of the ancient remains of Byzantium due to travellers.¹

Byzantine North Africa

We should know more about Byzantine structures in North Africa had more of them been dug rather than just listed,² although Lepelley's superb survey allows us to chart the construction and restoration of public buildings in the late Empire via inscriptions.³ Many North

¹ McCormick, Michael, "Byzantium on the move: imagining a communications history," in *Macrides, Ruth, ed., *Travel in the Byzantine World* (Aldershot, 2002), 3–29.

² Goodchild, R.G., "Fortificazioni e palazzi bizantini in Tripolitania e Cirenaica," *CCARB* 13 1933, 225–50; suggests 244 that the "Palace" of Sept. Severus at Lepcis Magna which Procopius says was reconstructed by Justinian was none other than the forum with its adjacent basilica—so reuse on a grand but lazy scale?

³ Lepelley, Claude, *Les cités de l'Afrique romaine au bas-empire*, 2 vols, (Paris 1979, 1981); invaluable for its detail: vol I is the overview, vol II city by city; I.295–7 for a survey of types of building maintained.

African enceintes survive today, both Roman and Byzantine.⁴ Duval correctly places Pringle's work as an important marker, noting that even this was not based on excavation. Observing that our view of re-use has changed since the 19th century, when it was thought to betoken incompetence, he sees the constant use of old blocks in Byzantine forts there (such as Dougga; or Ain Tounga, with materials perhaps from the nearby Temple of Mercury) as highly skilled, with a developed decorative aesthetic. That is, he rejects the view that re-use is a sign of haste in construction (the old explanation for late-antique city walls in Gaul and so on), or a sign of urban and building decadence. For this view, re-use constitutes no less than a desire to restore urban life, "civilization" in the graeco-roman sense, so that "the tangible sign of such a restoration is perhaps the building of an enceinte, just as the wall was the symbol of the foundation of a classical colony."⁵ Nor was marble sought only under Byzantine occupation, for prosperity across the region⁶ probably helped the development of luxurious Moslem living by providing fine materials, such as for the Zirid Palace at Achir (Médéa, Algeria, ca.947), with its marble colonnades and decorative fixtures, and large Roman-like blocks.⁷

The distinction between the 19th century and the more recent view is an important one, because around it revolves attitudes to the re-use of the past—from a nonchalant non-attitude, to care to imply meaning by re-use. The gap can be clearly seen in opinions of the late walls of Timgad (Batna, Algeria: built 539–40, as we know from the foundation inscription). In 1897 Ballu wrote that Timgad was built by Solomon's semi-barbarian soldiers, who were incapable of conceiving of or executing a proper building, so simply pile stones on one another.⁸ But Lassus, who actually dug the site, noted the high quality and care

⁴ Duval, Paul-Marie, *Cherchel et Tipasa: recherches sur deux villes fortes de l'Afrique Romaine*, (Paris 1946), 18–20 for a list. Pringle, Denys, *The defence of Byzantine Africa from Justinian to the Arab Conquest: an account of the military history and archaeology of the African provinces in the sixth and seventh centuries*, (Oxford 1981).

⁵ Duval, Noël, "L'état actuel des recherches sur les fortifications de Justinien en Afrique," *CCARB* 30 1983, 149–204: see 150ff., 181ff., 166.

⁶ Février, Paul-Albert, "Conditions économiques et sociales de la création artistique en Afrique à la fin de l'antiquité," *CCARB* 11 1970, 161–89 for well-illustrated overview.

⁷ Golvin, L., "Le palais de Ziri à Achir," *Ars Orientalis* VI 1966, 47–76. See also *dvd_fatimid_algeria.doc*.

⁸ Ballu, 1897, cited in Pringle, *Defence of Byzantine Africa*, 6.

taken in the re-use of material, suggesting that rather than recutting for the wall (which they did for the barrack-houses), the Byzantine masons simply chose the blocks carefully, with columns also re-used in the walls to help level it.⁹

Older blocks were used extensively and often carefully across Byzantine North Africa, in structures from city walls to churches. In contrast to Italy (where Christie notes decline and depopulation, accompanied by much smaller churches),¹⁰ North Africa seems to have been prosperous even in the face of a declining population. Whatever the reason (and earthquakes are documented as often very destructive), large quantities of classical remains were available. Hence churches across the region, often built from or within temples,¹¹ were typically larger than their Western counterparts of similar date, Rome excluded. In other words, they follow the Syrian/Anatolian example for size and luxury. But “the mid-sixth-century fortifications were the last major secular buildings in most African cities for some time, although some church construction continued later.”¹² That is, the last of waves of restorations of public buildings and works from Diocletian onwards, recorded in large quantities of building inscriptions.¹³ Such numerous and sometimes large monuments were to provide for the Muslims both marble structures to rival and materials with which to build.

Carthage was so large and splendid that her prestigious remains provided material for Byzantine, Moslem and later Christian buildings as well. The mysterious “round building,” which some have connected with the rotunda of the Holy Sepulchre, has been dated to the second half of the 4th century, but with improvements under Theodosius I. After the Byzantine arrival in 533 “For three quarters of a century embellishments were lavished on the monument and surrounding Christian

⁹ Lassus, J., *La forteresse byzantine de Thamugadi: Fouilles Timgad 1938–1956*, I, (Paris 1981), 59–106: see figs 26–30, fig. 13 & 42 for the quote.

¹⁰ Christie, “The archaeology of Byzantine Italy,” 265. Christie, Neil, ed., *Landscapes of Change. Rural Evolutions in Late Antiquity and the Early Middle Ages*, (Aldershot 2004).

¹¹ Vacs, J., “Christliche Verwendung,” 348f. for churches built on/in temples in N. Africa.

¹² Wickham: *Framing*, 638. Djelloul, Néji, *Les fortifications en Tunisie*, (Paris 1999), for a well-illustrated survey, with much Byzantine material.

¹³ Waldherr, G., *Kaiserliche Baupolitik in Nordafrika. Studien zu den Bauinschriften der diokletianischen Zeit und ihrer räumlichen Verteilung in den römischen Provinzen Nordafrikas*, (Frankfurt 1989); 40,000 inscriptions survive in N. Africa, and Waldherr deals with the Diocletianic ones and (37–47) with the politics of such rebuilds.

buildings. Floors were paved with mosaics, the last, the Mosaic of the Birds, dating probably to the early years of the seventh century.”¹⁴ Much of this was probably done to cater for Christian pilgrims, and part of the architectural upsurge meant that the Byzantines erected a large series of fortifications, often with decorated reliefs. The hastily constructed “Theodosian wall” at Carthage enclosed a vast area, and lost defensive function after Vandal conquest—but in the second quarter of the 6th century it was repaired, “presumably as a result of Byzantine reconquest”.¹⁵ In North Africa Islam followed Byzantine example: blocks from Roman sites nearby were routinely incorporated in Islamic buildings,¹⁶ and what must have been an antique marble colonnade was remarked upon in Tripoli in 1567–8.¹⁷ In spite of all the depredations, Carthage was still impressive in 1340, when Mustawfi wrote that “from its exceeding excellence [it] was likened to Paradise; and its walls were of marble.”¹⁸ Parallel to this notion is perhaps the Andalusí Abu Hamid Al-Garnatí’s 12thC account of the mythical King Sāddad’s emulation of the city of paradise; for he built it with 300,000 columns of emerald and jasper, on gold, sending workmen to all the mines of the world to get the bricks (of red gold) from which the walls were built.¹⁹

¹⁴ Frend, W.H.C., *The archaeology of early Christianity: a history*, (London 1996), 315; the round building was perhaps a cenotaph for the martyr-bishop Cyprian d.258.

¹⁵ Roskams, Steve, “Urban transition in North Africa: Roman and medieval towns of the Maghreb,” in Christie, N., and Loseby, S.T., eds., *Towns in transition: urban evolution in late antiquity and the early middle ages*, (Aldershot 1996), 159–83; see 163.

¹⁶ E.g. Tripolitania: Sjöström, Isabella, *Tripolitania in transition: late Roman to Islamic settlement: with a catalogue of sites*, (Aldershot 1993), 79, 92–3, 135, and cats 125, 146, 181.

¹⁷ Gomez-Géraud, Marie-Christine, & Yérassimos, Stéphane, eds., Nicolay, Nicolas de, *Dans l’empire de Soliman le Magnifique*, (Paris 1989); his book published Lyon 1567–8. See 90: “A large square with several large and high columns in two ranks, as a portico.” This had gone when Beechey visited in 1821–2: Beechey, F.W., & Beechey, H.W., *Proceedings of the expedition to explore the Northern coast of Africa, from Tripoly eastward, in 1821 and 1822, comprehending an account of the greater Syrtis and Cyrenaica, and of the ancient cities composing the Pentapolis*, (London 1828), 15 the arch, with “some partial ruins of columns and entablatures, here and there built into the walls of modern structures, are all that we were able to discover.”

¹⁸ Le Strange, G., *The geographical part of the Nuzhat-al-Qulub*, (Cambridge 1919), chap 23.

¹⁹ Rubiera Mata, María Jesús, “Arquetipos ideales de la ciudad árabe,” in Epalza, Mikel de, ed., *La ciudad islámica, ponencias y comunicaciones*, (Saragossa 1991), 57–64.

Constantinople

By the 8th or 9th century, and as the population fell, it is likely that most marble in newly-constructed churches in Constantinople was old, sometimes possibly from distant ruins, but the majority from structures within the city.²⁰ Expertise in the working of marble seems to have survived. Louis Robert cites a papyrus dated 709, on the despatch of a “pristos” to the mosque at Damascus, which he suggests is a sawyer for the wall veneer. The conclusion he draws is that the Dokimeion quarries were not only still working, but famous abroad—and still famous in the 10th century, when the legend of S. Ariadne was written down.²¹ He also cites Nicholas Mesarites’ ekphrasis on the Holy Apostles (written 1198/1203), who praises such workers because they can cut veneer so thinly that the finished wall seems to be clothed in multicoloured tissues—though we cannot be sure that Nicholas was writing about workers during his own day. Whether fresh-sawn or old, however, marble often played a large part in the beauty of such churches, at least in the mind of the commissioner. Ousterhout cites the ekphrasis by Patriarch Photios describing the church of the Virgin of the Pharos, a section of which concentrates on marble, so that, although we learn little about what the atrium looked like, we can conclude that for Photios marble was an important element of its attractiveness.²² One problem, of course, is that although churches converted to mosques retain their old columns and capitals, so few retain their wall decoration.²³ Fortunately,

²⁰ Kidonopoulos, *Bauten in Konstantinopel* for the buildings’ later history: 1–148 for sacred, 149–226 for profane ones; see 232–42 for restoration etc. 1261–1328. Betsch, William E., *The history, production and distribution of the late antique capital in Constantinople*, PhD (UPenn 1977), 249–77 for re-used capitals.

²¹ Robert, Louis, “Stace, les carrières et les monnaies de Dokimeion, Attis et Agdis-tis,” in his *À travers l’Asie Mineure: poètes et prosateurs, monnaies grecques, voyageurs et géographie*, (Athens 1980), 221–56; see 223, 244f.

²² Ousterhout, Robert, “Reconstructing ninth-century Constantinople,” in Brubaker, Leslie, ed., *Byzantium in the ninth century: dead or alive?* (Aldershot 1998), 115–30; see 124: “The atrium of the church is splendidly fashioned: for slabs of white marble, gleaming bright and cheerful, occupy the whole façade, and by their evenness and smoothness and close fitting they conceal the setting of one to another and the juncture of their edges, so that they suggest to the beholder’s imagination the continuousness of a single [piece of] stone with, as it were, straight lines ruled on it—a new miracle and a joy to see...”

²³ Kirimtayif, Süleyman, *Converted byzantine churches in Istanbul. Their transformation into mosques and masjids*, (Istanbul 2001): 7–87 for surviving structures, and 88–109 for structures destroyed. Of 39 conversions, 16 were under Mehmet II, 10 under Bayezid II, 3 each for Selim I & Süleyman I, etc.

Kalenderhane (once thought to be 9th-century but now considered late 12th-century)²⁴ has a well-preserved interior. This suggests that the use of wall veneer—and to the top of the walls, not just as a dado—was a continuing tradition. It uses materials from an earlier church on the site, with eight different kinds of marble, and some columns were certainly cut up to make some of the marble panels.²⁵ Paribeni²⁶ notes a particular penchant for coloured marbles in Byzantium, which Leo VI in a sermon about the church of Stiliano Zautse likened to a meadow in full flower. He suggests also that there is evidence of pride in using local stones even against imported marble—but then exemplifies putting imports in prominent positions, as in the main church at Apollonia, Cyrenaica, where the presbyterium and the first part of the nave are of new marble, and the rest of local stone.²⁷ Apparently there is a tension (unseen in Rome?) between local pride and imported magnificence.

It was also the case that later Byzantium exported (from the capital or elsewhere?) what must have been old marble. Thus c.1200 materials were imported from Constantinople to decorate churches at Kiev, Chernigov and Timutorokan,²⁸ and we find 13th-century marble cladding in exceptionally splendid opus sectile and porphyry rectangular panels in the south apse of the Panaghia Chrysokephalos at Trebizond—presumably imported just like the marble columns for Haghia Sophia there.²⁹ If this is up-to-date Byzantine cladding, then we might usefully compare it with the cladding on S. Marco, Venice—a church of Byzantine forms and, in this respect at least, contemporary Byzan-

²⁴ Striker, Cecil, “The findings at Kalenderhane and problems of method in the history of Byzantine architecture,” *Byzantine Constantinople*, 107–116, see 107.

²⁵ Striker, Cecil L., ed., *Kalenderhane in Istanbul: the buildings, their history, architecture, and decoration*, (Mainz 1997), 102ff., 117ff. If not columns for much of the work, then where did the blocks come from—or were quarry-blocks available? Perhaps 40% of the original veneer survives, including nearly half of the 70+ coloured plaques in the main church.

²⁶ Paribeni, “L’uso e il gusto del marmo,” 164–5.

²⁷ *Christian monuments of Cyrenaica*, illus. 27ff.

²⁸ Martin, Janet L.B., *Medieval Russia, 980–1584*, (Cambridge 1995), 63.

²⁹ Eastmond, Antony, *Art and identity in thirteenth-century Byzantium*, 50 & fig. 23. Talbot Rice, David, “Notes on some religious buildings in the city and vilayet of Trebizond,” *Byzantion* 5 1930, 52 and figs 2–3; Menna, Maria R., “Il programma imperiale dei Grandi Comneni e la chiesa della Theotokos Chrysokephalos a Trebisonda,” in Quintavalle, Arturo C. ed., *Medioevo: immagini e ideologie*, (Milan 2005), 138–44.

tine adornment. Perhaps Byzantium also exported old marble to her trading partners, Pisa and Genoa.³⁰

Anatolia and Greece

It is in the East that Christian ambivalence about the great pagan monuments is highlighted, as they admire their marble but detest what they represented, and a wide range of attitudes is apparent.³¹ But how might one love the sin (the marble) and hate the sinner? The general route was to make marble (which had been the very symbol of the Emperor) into that of the Church, so that “the sign of the richness of the church and of the eminent dignity of the House of God.”³² In this way, churches on the placement of temples “were considered to have purified the “polluted” places.”³³ The bishops who could build lavish palaces from pagan marbles were therefore doubly virtuous—and lucky.³⁴ Re-use of plain marble is easy to explain away, but that of figured reliefs is quite another, so it has been suggested that figured material was Christianised by having its meaning somehow transformed—a reinterpretatio cristiana. Although in most cases solid evidence is lacking,³⁵ in Greece as elsewhere figured pagan reliefs were incorporated into churches (rather than fortresses) for conceivably apotropaic purposes.³⁶ In one

³⁰ Banti, Ottavio., ed., *Amalfi, Genova, Pisa e Venezia: il commercio con Costantinopoli e il vicino Oriente nel secolo XII* (Atti della Giornata di Studio, Pisa 1995) (Pisa 1998).

³¹ *Saradi-Mendelovici, “Christian attitudes,” passim.

³² Sodini, Barsanti, & Guiglia Guidobaldi, “La sculpture architecturale en marbre,” 301.

³³ Mendelovici, “Christian attitudes,” 54; survey and rich bibliography in Vaes, J., “Christliche Verwendung antiker Bauten,” *Ancient Society* 15–17 1984–6, 305–67: 338ff. for reuse of mausolea & heroa; 326ff. for temples; 317ff. for bath complexes.

³⁴ Mueller-Wiener, Wolfgang, “Bischofsresidenzen des 4–7 JHS. im östlichen Mittelmeer-Raum,” *Actes du XIe congrès international d’archéologie Chrétienne* (Rome & Città del Vaticano 1989), I, 651–709: 680ff. for the sumptuous setup at Side; 705 for palace plans. But NB Shunning of nudity is one element in Byzantine sculpture militating against some re-use: cf. Maguire, Eunice D., & Maguire, Henry, *Other icons. Art and power in Byzantine secular culture*, (Princeton 2006), especially chap 4, “Byzantine art and the nude.”

³⁵ Papalexandrou, Amy, “Memory tattered and torn: spolia in the heartland of Byzantine Hellenism,” in Van Dyke, Ruth M., & Alcock, Susan E., eds., *Archaeologies of Memory*, (Oxford 2003), 56–80; see 61 for discussion.

³⁶ Saradi, Helen, “The use of ancient spolia in Byzantine monuments: the archaeological and literary evidence,” *International Journal of the Classical Tradition* 3 (1997), 395–423; 407–8 figs 6–7 for church of Panaghia Gorgoepikoos (Little Metropolis) in Athens, dated to 12th century; Papalexandrou, Amy Cassens, *The Church of the Virgin*

instance in Athens it is suggested that reliefs of beasts were used and then “controlled by the crosses and circles that frame them.”³⁷ Another route was deliberately to trample underfoot pagan marble—while of course reusing it³⁸—a device we have already come across in an earlier period. Certainly, hostility seems frequently overwhelmed by admiration for pagan monuments, seen in the re-use of their members.³⁹ Much of the 9th- to 12th-century Byzantine material mapped out by Claudia Barsanti in Anatolia must be old, rather than fresh-quarried.⁴⁰ In some cities, churches were deliberately built near to pagan shrines, the latter being left to decay, and inscriptions composed to point the moral. But outdistancing conversion is the use of antique elements as building materials, best seen in the Byzantine forts that dot the Eastern Mediterranean. Of these the castle called “Forty Columns” at Nea Paphos (Cyprus) was built in the later 7th century in the face of the Moslem advance—its name proclaiming the source of its materials, and the nature of everyday Byzantine interest in the antique.

In some ancient centres, temples were indeed converted. At Aphrodisias this perhaps occurred in the middle or late 5th century—“a major engineering work.”⁴¹ Cormack makes a convincing case that the cathedral was a new building within the parameters provided by the dimensions of the structure it replaced. The reworking was dependent upon engineering, which moved columns, and changed both dimensions and character. Unfortunately this sophistication was then brutalised by the crudity of the subsequent Middle Byzantine conversion (10thC or 11thC), when much earlier chancel slabs were roughly inserted between sanctuary and aisles. Cormack’s conclusion solves for us the original dilemma of how to privilege the new while reusing the old, with the church-in-temple-shell offering continuity arrested by visual difference, so that “The change from temple to cathedral communicated to the

of Skripou: *Architecture, sculpture and inscriptions in ninth-century Byzantium*, (Ph.D., Princeton 1998), with blocks from the ancient site of Orchomenos.

³⁷ Maguire, Henry, “The cage of crosses: ancient and mediaeval sculptures on the “Little Metropolis” in Athens,” *Thymama ste Mneme tis Laskarinos Boura*, (Athens 1994), 169–72; quote from 172.

³⁸ Saradi, “The use of ancient spolia,” 401.

³⁹ Saradi-Mendelovici, “Christian attitudes”: see 47, 53.

⁴⁰ *Barsanti, Claudia, “Scultura anatolica di epoca mediobizantina,” in Barsanti, Claudia, et al., eds., *Milion: Studi e ricerche d’arte bizantina*, (Rome 1988), 275–95.

⁴¹ Smith, R.R.R., “Late antique portraits in a public context: sonoric statuary at Aphrodisias in Caria, AD 300–600,” *JRS* 89 1999, 155–189; see 156ff. for sketch of urban history 300–600, including architectural refurbishment.

Byzantine observer the fact of change, the victory of new over old.⁴² But not everyone wishes to see even the extensive use of old marble as purveying some political message. Stephenson, for example, finds strained the idea that the naval complex opposite Dervent (built in the early 970s) was “intended to symbolize an age of reconquest,” and he simply points to nearby ruins and quarries.⁴³ His scepticism should encourage us not to read the attitudes we wish to promote into buildings for which we have neither inscriptions nor (even vaguely contemporary) opinions.

Marble was everywhere available in Anatolia and Greece because of lower population levels, unable to maintain the large number of marble-rich churches, very few of which have survived with any of their furnishings. The Byzantine church of Dereagzi (late 9th–early 10thC) illustrates how monuments have been stripped. 20km inland from Myra (which was perhaps the source of its material),⁴⁴ this monument is so large and splendid that its investigator believes it must have been designed from Constantinople, being “one of the major foundations of the early Macedonian period.” Its granite columns are from Marmara, and its cornice blocks and other architectural elements are proconnesian, and identifiably old, as are the sarcophagus and relief fragments used in the structure of the church.⁴⁵ By the Sea of Marmara itself, Fatih Camii (perhaps 9thC) at Tirilye uses 6th-century capitals both inside and in the portico of what is now the mosque, while Kemerli Kilise uses a more miscellaneous collection, no doubt because it is much later (late 13thC); nearby, S. John of Pelekete has sarcophagus fragments built into its S wall (after its 9thC rebuild).⁴⁶ Further east monuments near the sea have also been stripped. Hill has surveyed a group of early Byzantine churches, in Cilicia and Isauria. He finds there a veritable fury for building reflected in funerary inscriptions, and the results are to be seen in the more than 12 churches of Korykos. But although

⁴² Cormack, Robin, “The temple as the cathedral,” in Roueché, C., ed., *Aphrodisias Papers. Recent work on architecture and sculpture*, (Ann Arbor 1990), 75–88; 82 for quote; fig. 6a for later insertions.

⁴³ Stephenson, Paul, *Byzantium's Balkan frontier: a political study of the Northern Balkans, 900–1204*, (Cambridge 2000), 57–8.

⁴⁴ The port of Andriake, now silted, was still open (and the river navigable for another mile) in the 1830s: cf. Texier, *Asie Mineure*, 690–1.

⁴⁵ Morganstern, James, *The Byzantine church at Dereagzi and its decoration*, *Ist Mitt.* Beiheft 29 (Tuebingen 1983), 92f., 169, 181–8.

⁴⁶ Mango, Cyril, & Sevckenko, Ihor, “Some churches and monasteries on the southern shore of the Sea of Marmara,” *DOP* 27 1973, 235–77; see 236–40. 242–8

fragments of marble column, capital and wall revêtement have been unearthed, “little is known about the decoration of these churches, since none is intact, and so few have been excavated.”⁴⁷ A glance at the map will show why so little marble survives at this harbour, a favourite in mediaeval times. The same conditions exist further down the coast at Kanlidivane, where a group of churches is adjacent to a large pagan necropolis. At Kaunos, also on the coast, little superstructure survives, and many of the remaining blocks have been plundered for their metal cramps. It is sometimes not difficult to guess the types of projects for which such pieces might have been used—not just for churches and palaces, but also for civic improvements of a grandeur unseen further west until the Renaissance. For example, Bishop John Apokaukos (Metropolitan c.1199/1200 to his death in 1223) was proud of his church and palace at Naupaktos, and described them in a letter to Thessaloniki. His palace was constructed entirely of marble, and the square streets of the town were paved in marble so that people could go about dry-shod—unlike in Thessaloniki, where they ended up caked in mud!⁴⁸ It was marble (perhaps from the ancient settlement itself) which provided this very specific historical link to the small community in Western Greece, when the area was presumably prosperous again after centuries of decline.⁴⁹

It might also be the case that the provinces followed the lead of the capital in spoliation. Papalexandrou writes of the Church of the Virgin at Skripou (central Greece), which has a firm construction date of 873/4, suggesting in a section entitled “Skripou: Patron and Monument in a Landscape of Memory” that this church, built with column drums, Hellenistic stelae and statue bases from the adjacent cemetery is a deliberate reference to the past. She notes that it reflects an artistic revival under Basil I (867–86 AD), and then surmises that some materials were “tangible vehicles for the transmission of social memory, primarily as mnemonic devices capable of operating at various societal

⁴⁷ Hill, Stephen, *The early Byzantine churches of Cilicia and Isauria*, (Aldershot 1996); see 7: at Uzancaburc, of the 10 funerary inscriptions which gave the profession, 5 were building trade, and of them an architect and a marble-mason; 115ff. for Korykos.

⁴⁸ Angold, Michael, *Church and society in Byzantium under the Comneni, 1081–1261*, (Cambridge 1995), 221.

⁴⁹ Cf. Wickham: *Framing*, 630–1 for urban recession in 7thC at Corinth, Athens, Butrint, etc.

levels”⁵⁰—though more detail on precisely what this entailed would help. In any case, it seems that memory associated with old remains is never clearly defined and changes over time,⁵¹ although the use of earlier Byzantine marble in later churches could signify a desired link with the known past.⁵² What is more, such re-use is common in Greek churches. Antoine Galland, who visited in 1672–3, noted not only the church on Patmos with its marble veneers but, having seen the fortress on Patmos built exclusively of old blocks, remarked that “one should always go inside Greek churches, because usually one finds antique inscriptions in their walls, and sometimes bas-reliefs.”⁵³

In Epirus, the church of the Panaghia Parigoritissa at Arta demonstrates what happens when the desire to use marble overcomes both constructional efficiency and standard aesthetics. It was constructed between 1285–1289 by Nicephorus I Comnene Doukas and his wife Anna Paleologos. The exterior is of highly decorated brickwork, and the interior was probably once veneered with marble. But it is the supports for the dome (the result of an enlargement: the dome was originally supported on four tall columns) which are especially remarkable. In the NE section, the upper columns half-sit on consoles above a large column below, but the rest hang out into thin air. On the S side of the crossing, however, columns on consoles support a double-scooped-out console block which supports two horizontal column-shaft fragments, themselves supporting the base and column above them. This church offers surely the strangest way of achieving great height (for the central dome) with a miscellany of short columns and fragments. In fact, none of the columns is necessary, because the dome could easily have been supported by solid brickwork.⁵⁴ Just as strange are the marble animal

⁵⁰ Papalexandrou, “Memory tattered and torn,” 63–5, 76; *ibid.*, *The Church of the Virgin of Skripou*, *passim*.

⁵¹ Meier, Hans-Rudolf, “Vom Siegeszeichen zum Lüftungsschacht: Spolien als Erinnerungsträger in der Architektur,” in Meier, Hans-Rudolf, & Wohlleben, Marion, eds., *Bauten und Orte als Träger von Erinnerung: Die Erinnerungsdebatte und die Denkmalpflege*, (Zürich 2000), 87–98.

⁵² *Vanderheyde, Catherine, “La sculpture architecturale dans la thème de Nikopolis du Xe au début du XIII^e siècle,” *BCH Supp* 45, 2005, 92–8; see 96ff. and figs 44–6, 50–4 for reliefs reused for structural or purely aesthetic reasons.

⁵³ Schefer, Charles, ed., *Galland, Antoine, Voyage à Constantinople (1672–3)*, (Paris 2002), 209f.

⁵⁴ *Theis, Lioba, *Die Architektur der Kirche der Panagia Paregoretissa in Arta/Epirus*, (Amsterdam 1991), 56ff., and plates A-12, A-20, A-22, and 43–60 for the columnar supports inside.

supports under some of the lowest capitals—and even stranger the system of corbelling which allows the columns to creep inward from the wall.⁵⁵ Orlandos remarks how western such animal decoration is, and we might wonder whether the construction might have been inspired by manuscript illustrations, such as animal-rich canon tables.⁵⁶

Thessaloniki and Mount Athos

Thessaloniki, a city of once-splendid churches, was given a set of city walls rich in displayed antiquities, and especially so in the west-facing triangular towers, with more in the fortress above. The western ramparts—that is, facing the two main west roads leading into the city—are the most impressive of all. The dating is rubbery,⁵⁷ and disputed.⁵⁸ These are made of very regularly laid courses of three-metre-long re-used steps, probably from the hippodrome. At Odos Klavdianos, the main west-facing road, a funerary altar and a fine Greek inscription are also displayed. This is indeed called the Golden Gate. To the north, Agios Dimitriou has punched through the line of the walls at the Letaia Gate: at street-level, six courses of massive entablature and frieze blocks, some of them almost 3m in length, have been laid. In buttresses one hundred yards to the north of the gate, Doric capitals are placed for display, together with other antique marble blocks. At the top of the hill, the Heptapyrgion makes extensive use of column shafts, capitals, bas-reliefs and transennae in its towers and gates, especially that of Anna Palaeologina. The city's churches were rich in ancient marble: Haghia Sophia, Hagios Demetrios (a magnificent wreck after the fire of 1917) and the Acheiropoietos were given large

⁵⁵ Orlandos, Anastasios K., *La Parigoritissa di Arta*, (Athens 1963), VIIIff.; see figs 53–4, 59–66 for the animal supports, and 70–5 for the columns.

⁵⁶ Paris BnF MS Lat 11534: canon tables fols 205r or fol 205v, where the columns supporting the arcading are on beasts as bases, and only some of the columns rise from bottom to top—others apparently cantilevered out from the wall. Here capitals are often shown doing duty as bases—perhaps another confirmation for builders that for provincial builders this could be a “correct” way of proceeding.

⁵⁷ Spieser, J.M., *Thessalonique et ses monuments du IV^e au VI^e siècles: contribution à l'étude d'une ville paléochrétienne*, (Paris 1984), 25–80 for ramparts, and plates IX.1, X.1, X.2, XII.2 & XIII.1; there were certainly repairs to the West wall in the 6thC, but Spieser rejects arguments making the whole West wall VII century.

⁵⁸ Vickers, Michael, “The date of the walls of Thessalonica,” *Ann. of the Arch. Museum of Istanbul* 15–16, 1969, 313–18; *ibid.*, “The Hippodrome at Thessaloniki,” *JRS* 62, 1972, 25–32; *ibid.*, “The late Roman walls of Thessalonica,” *Roman Frontier Studies*, 1974, 249–55.

and splendid columns and capitals, walls and arch veneers and marble paving slabs, those in the last some 4m long.⁵⁹ All their interior walls were presumably veneered. Hagios Demetrios was clearly very splendid. Fragments of veneer survive in the narthex, and all surfaces of the western arcades are veneered in alternate patterns, so that one intrados is composed of small mirrored-veneer panels, its neighbour of richly patterned opus sectile. Ruins in the vicinity provided marble for Murad II's palace (1450) at Edirne.⁶⁰ Outside Hagia Sophia, large quantities of old marble still lie all around.

Mount Athos deserves a mention at this point because, although fires and other disasters have taken their toll, some of the monasteries with their exalted status were rich in marbles in the Middle Ages. Situated on a peninsula with access from the sea, the various monasteries perhaps obtained their marble from Thessaloniki or Thasos, both of which are nearby. Most likely is Philippi, near Kavala (on the mainland opposite Thasos), with its three 6th-century basilicas. All of these have lost most of their columns and capitals (except for some very large ones from Basilica B), leaving fragments behind. Fragments of stucco imitating opus sectile were found in the baptistery of Basilica A, so perhaps there was never much imported coloured marble on this site, beyond small paving squares (Thasos marble is white). Indeed, much paving has survived, in the Roman forum, octagon, and bishop's palace. Where did the missing members go? It is about 10km to the sea at Kavalla, whence Mount Athos and Thessaloniki were the closest destinations: and Basilica A at Philippi could have been the source of the large proconnesian floor-slabs in several Thessaloniki monuments, the more so since this city was presumably the only location throughout Byzantium to see much new and extensive building from the 9th century onwards. On Athos, Cyriacus was impressed by the marble and porphyry in the church at the Vatopedi, and also by the Grand Lavra, the latter just winning the marble stakes because to its church with the same features was added an ablution fountain out of a single block, sheltered by columns. And even the smaller Iveron was described with what the reader now sees is a formulaic phrase.⁶¹ Today,

⁵⁹ Bakirtzis, Charalambos, "The urban continuity and size of late Byzantine Thessalonike," *DOP* 57 2003, 35–64; see 50–1.

⁶⁰ *EI Edirne*.

⁶¹ Bodnar, Edward W., & Mitchell, Charles, eds., "Cyriacus of Ancona's journeys in the Propontis and the Northern Aegean, 1444–1445," *Memoirs of the American*

the late 10th-century marble floor of the katholikon at Vatopedi is of re-used marble, and the katholikon of the Iveron also uses old columns and capitals. Some of the taste for marble might have stemmed from Amalfi, which founded a Benedictine monastery here c.985, between the Lavra and Iveron, which no longer exists.

Ankara and Nicaea/Iznik

An important Roman city, Byzantine Ankara preserves a high citadel with more varied antiquities displayed in its citadel walls even than Nicaea. These were perhaps built when the antique city already lay in ruins, by the Byzantines or Seljuks.⁶² As with North Africa, we can contrast earlier opinions with more recent ones. A French traveller visited in 1717 and, although he realised the intention was to embellish, complained of the mixed columns, architraves, bases and other pieces set into the walls.⁶³ De Jerphanion, however, observes that the walls should be Byzantine, for they use the same three courses of stone and five courses of brick to be found in 5th century Constantinopolitan buildings. Hence he puts these ramparts after 630, with repairs in the next century. He observes that the richest and most interesting antiquities have been placed on the west and south walls, and recognizes the general use of marble there (not the volcanic stone seen on the east), and the taste with which the blocks have been carefully chosen.⁶⁴ James

Philosophical Society 112 1976; see 50, 53–4, & 55; Vatopedi: “parietibus expolito de marmore, porphyritibusque et colore vario lapidibus, columnis et mirifico pavimento exornata;” Grand Lavra: “columnis proporticibus ianuis pavimentis atque parietibus expolitis marmoreis porphyreisque et iaspideis varioque colore eximia arte contextis lapidibus...”—it added “in aula amplam et expolitam unico de marmore urnam marmoreis circum columnis alta plumbeaque et subter eximie depicta testudine protectam, nec non pulcherrime elaboratis undique delicato et candidenti de marmore spondis munitam;” Iveron: “expolitis marmoreis porphyreisque lapidibus columnis parietibus pavimentisque tam eximia elaboratis arte omni ex parte conspicuam.”

⁶² Foss, Clive, “Late antique and Byzantine Ankara,” *DOP* 31 1977, 29–87; 60ff. for list of buildings; 74ff. for the walls.

⁶³ Pitton de Tournefort, *Relation d'un voyage du Levant*, 2 vols, (Paris 1717), II.452.

⁶⁴ De Jerphanion, G., “La Citadelle byzantine d’Angora,” *Mélanges d’archéologie anatolienne*, (Beirut 1928), 144–222 & plates lxxxi–cxx; 144f. for dating; 151–2 for quote; For the regularity of the W. façade, with old marble below, brick courses above, and regular square towers, see his pl. XCVI.2 & XCVIII; ditto plates XCIX–CII for antiquities in the S. walls & towers. Plate XCVIII.1–2 shows the curtain wall between towers 4 & 5 on the S. walls, where a course of pedestal blocks (each with entablature) is to be admired, with a pagan altar in the centre, some high-relief blocks of human figures below (admitted laid on their side), and a sculptured bas-relief above.

also views the old materials as carefully grouped around the gates, and arranged with the operative faces outwards.⁶⁵ The square towers near the south gate of the citadel are marble-clad, and made up of antique blocks chosen for their straight edge. But they also incorporate entablature blocks, one of which neatly wraps round the corner. This wall, unlike one of the earliest walls of re-used blocks in Athens,⁶⁶ was clearly erected with care. The gates are impressive, even if some of the drainpipe-segments used elsewhere are to our eyes less decorative. In their display the effect is comparable to that of Thessaloniki, with the great fortress up the hill, the Heptapyrgion, and the western sections of the city walls, especially between the Golden Gate and the Letaia Gate. At Thessaloniki the marbles rise to a height of only about three metres (with brick above); they are placed to impress, because they are largely hippodrome seats, carried here from outside the eastern walls of the city. But at Ankara, antiquities decorate higher courses as well, surely for visibility from afar.

Edging out Ankara, Nicaea (present-day Iznik) has the best set of city walls in Byzantium after those of Constantinople, now displaying more marble than did even the sea walls in the metropolis. Nicaea's first walls were completed between 253 and 270, but the Arab siege of 727 provoked a rebuild under Leo III (717–41) around the Istanbul gate, including a new facing of marble,⁶⁷ and “three square towers and their connecting wall are evidently built out of the ruins of one magnificent temple.”⁶⁸ In their splendour they surely imitate the Golden Gate at Constantinople (and conceivably the Aurelian Walls of Rome). The Istanbul Gate and other gates make a deliberate display of antique reliefs; and, for marble, these are much more impressive than those of the Constantinople “parent.”⁶⁹ This is especially the case with the gorgeous marble revêtement (between towers 69 and 73: Schneider's

⁶⁵ James, L., “Pray not to fall into temptation and be on your guard: pagan statues in Christian Constantinople,” *Gesta* XXXVI 1996, 12–20; cf. 16.

⁶⁶ Frantz, *Late antiquity*, 5ff. (plus appendix 125–41 for complete description) for the post-Herulian wall (after invasion of 267), plus plates 7–14.

⁶⁷ Otto-Dorn, K., *Islamische Iznik* (Berlin 1941); *ibid.*, “The city walls of Nicaea,” *Antiquity* 12, 1938, 437–43. Foss, Clive, “The walls of Iznik 260–1330,” in Akbaygil, Işıl, İnalcık, Işıl, & Aslanapa, Oktay, *Iznik throughout history*, (İstanbul 2003), 249–62.

⁶⁸ Fellows, *Travels*, 84.

⁶⁹ Schneider, A.M., *Die römischen und byzantinischen Denkmäler von Iznik-Nicaea* (Berlin 1943); Fellows, Charles, *A journal written during an excursion in Asia Minor*, London 1839, 110–11.

notation)⁷⁰ which would have been visible to anyone approaching from the Istanbul road (whereas immediately east of the Istanbul Gate the walls swing quite sharply away from the gate). The marble blocks must have come from classical monuments within the city. And if proof were needed of conscious beautification, there is also tower 94, erected on the south side of the southwest sea gate.⁷¹

Indeed, so striking is the effect of Nicaea's walls that Theodore Metochites (1270–1332) praises them as “so finely constructed that it is at once a pleasure and a marvel to behold their . . . great unconquerable beauty, their splendid barrier.”⁷² Iznik has preserved her walls because her population has not expanded,⁷³ and this in its turn means that her Archaeological Museum is very rich, retaining many Byzantine capitals, and a collection of carved panels (4th–14th centuries) better than any other museum else including Istanbul.⁷⁴ Because of its location, the city was frequently visited and reported upon.⁷⁵ Such richness is reflected in her mosques, namely the Yesil (1378–87), the Mahmut Celebi (1442), and the ruined Seyh Kutbettin (15thC). All of these use old marble extensively, some of it recut into exquisite panelling both solid and pierced. But nobody bothered to retrieve and re-use the splendid opus sectile floor from Haghia Sophia, the most important church within the walls.

Ephesus/Seljuk and the south coast

Nicaea is a small settlement rich in monuments which retained her walls because the mediaeval population never expanded outside them, and she stood on an enclosed lake, not a river, so transporting marble would have been difficult. Ephesus, on the other hand, is a settlement now a few kilometres from the sea, where the ruins were certainly plundered and the marshy erstwhile harbour negotiated. In spite of such strangulation of her harbour, Ephesus survived—but the only

⁷⁰ Schneider, A.M., & Karnapp, W., *Die Stadtmauer von Iznik* (Berlin 1938).

⁷¹ Ibid., plate 42; dating discussion 36–43.

⁷² Foss, Clive, & Tulchin, Jacob, *Nicaea: a Byzantine city and its praises, with speeches of Theodore Laskaris, in praise of the great city of Nicaea and Theodore Metochites*, (Brookline MA 1996).

⁷³ Akbaygil, et al., *Iznik throughout history*, 153 for population tables.

⁷⁴ *Barsanti, Claudia, “Iznik-Nicaea's Archaeological Museum—in search of a catalogue,” in Akbaygil, et al., *Iznik throughout history*, 267–301.

⁷⁵ Raby, Julian, “A 17th-century description of Iznik-Nicaea,” *Ist Mitt* 26 1976, 149–88—i.e. John Covel, chaplain to the English Ambassador, 1669–77.

identified buildings erected here in the 7th century (or at Miletos, Side, and Pergamon) are fortifications: “It was her key trading location that ensured her survival”—yet in Anatolia as a whole “it would be hard to argue for more than occasional building on most classical urban sites after 650.”⁷⁶

Indeed, it was destruction rather than building that continued. Ephesus’ population was small, the main mediaeval settlement being two kilometres away, at Seljuk. Here upper and lower fortresses were constructed, the connecting east walls between the two consisting almost exclusively of old marble uniformly (if not particularly artistically) arranged. However, the monumental gate to the lower fortress, the Gate of Persecutions, is laid out more carefully for effect, and attracted admiration because of its scale and figured bas-reliefs. Pitton de Tournefort saw it in the 18th century, and showed himself a connoisseur of antiquities, admiring the Gate because it was built with “the most beautiful marbles from ancient Ephesus.”⁷⁷ Within the lower citadel stood the great Church of S. John, which was described in the 10th century as being beautiful and in good condition⁷⁸—though how long the church stood entire and working is not known. This massive church’s columns and bases, as well as some of its marble-block walls, was built from the materials of the classical city. So also was the Isa Bey Mosque (1375) down the hill from the Lower Fortress. This also uses very large quantities of marble not just for the prayerhall and courtyard, but also for the outside wall, the façade and part-sides of which are all marble, the blocks finely re-cut. Classical friezes are inserted artistically, and the entrance portico is given stone muqarnas. Round the corner, a slightly damaged archway demonstrates how jigsawed two-colour-marble keystones would be cut. Although the viewer might expect each mirror-image interlocking segment to be a keystone, here the blocks are all cut in the whitish marble, and the mirror-image green patterns are simply two-centimetre-thick pieces of opus sectile. A variation on this, with c.7cm-deep inserts, is seen on the coloured marble dovetailed into the entrance arch of the Sahip Ata Mosque (1258) in Konya.

Equally as important as the Izmir/Ephesus area for contacts with the West was the south coast, where Satalia (Antalya) was an important

⁷⁶ Wickham: *Framing*, 629.

⁷⁷ de Tournefort, Pitton, *Relation d’un voyage du Levant*, 2 vols, Paris 1717, II, 513.

⁷⁸ Foss, Clive, *Ephesus after antiquity: a late antique, Byzantine and Turkish city*, (Cambridge 1979), 113, 135.

trading centre in the twelfth century,⁷⁹ and where ancient cities lay all around, with “numerous fragments of ancient buildings, columns, inscriptions and statues, which are generally built into the walls of the town with care and some taste.”⁸⁰ Antalya was an end-point for trade from the plateau and even further afield, and the region was, like Ephesus and the bay of Smyrna, popular with western traders and pilgrims. However, its harbour was small (shelter was scarce on this treacherous gulf), so could this be why Perge (18km distant) retains a spectacular colonnaded street, and Aspendos (25km away, and helped by an earthquake, perhaps) a pristine scenae frons? Drifting sand was a problem. At Side, for example, many column-shafts went into the Byzantine walls, and many others survive today (some have been re-erected), because of a combination of sand, and the lack of a harbour for anything other than small craft. In the 19th century, the site was uninhabited, nor was the nearby land farmed, but it was known as a place for lime: “I found several kilns, which are supplied from the cornices and capitals of columns, these parts being the whitest and the most easily broken up.”⁸¹ Seleukia in Pamphylia, about 35km inland from Side, has its monuments largely intact, not least because the main building material is limestone, but also because of docking ships capable of taking old shafts on board was surely difficult here.⁸²

Conclusion

Given the size of the Empire even as it shrank, the examples of marble re-use given above could be multiplied. The low populations in North Africa, Syria and Anatolia (still boasting the most extensive ancient ruins even today) meant that large quantities of marble were there for the taking. Inland sites were left alone because of transport difficulties, so that Nicaea and Ankara survived practically untouched, while Konya and Kayseri consumed many of their old marble in city walls and

⁷⁹ Heyd, *Commerce*, I, 303.

⁸⁰ Fellows, *Travels*, 140.

⁸¹ Fellows, *Travels*, 152–3.

⁸² The coast was easy to survey (cf. Beaufort, Francis, *Karamania*, (London 1817) because a large vessel would anchor off-shore and send in boats; but loading shafts would require the vessel to be docked or very close to shore.

mosques.⁸³ Athos must once have been as marble-rich as Thessaloniki before the great fire of 1917. Much of Ephesus survived because her monuments were deep in silt, while Greek islands were favourite ports of call for scavenging Venetians and then Ottomans. No documentation has survived detailing just how Christians went about buying marble from now-Islamic lands (when they could not simply loot it), but the depredations along the south coast of Turkey, and indeed anywhere that a ship could anchor or preferably dock (such as Leptis Magna) attest to the ease with which useable items could be taken away.

The next chapter deals with the earlier centuries of Islam, so at this point we might ask how the architecture of this new and vigorous civilization was regarded in Byzantium. Little evidence survives, with the possible exception of the mysterious Bryas Palace of c.830 and the 12th-century Mouchroutas Pavilion, both in Constantinople.⁸⁴ Imitation is the sincerest form of flattery, but neither Byzantium nor the West sought to adopt Islamic architecture wholesale. Not that there would have been any lack of expertise, for in 1190 the Emperor thanked the Caliph Al-Nasir for the gift of a minbar, and acknowledging the arrival of muezzins and the khatib to pronounce the khutba “in the old mosque” in Constantinople.⁸⁵ Instead, it is the decorative arts of Islam (window frames, relief and intaglio patterns, sophisticated ceramics and textiles) which enrich the West, together with the very example of the extravagant use of marble (largely old, some freshly quarried) which illuminates many of the great monuments of Islam, to which I now turn.

⁸³ Al-Harawi (d.1215), *Guide*, 133, mentions Kayseri’s hippodrome and its ruins—all disappeared.

⁸⁴ Tronzo, William, “Byzantine court culture from the point of view of Norman Sicily: the case of the Cappella Palatina in Palermo,” in Maguire, Henry, ed., *Byzantine court culture from 829 to 1204*, (Cambridge, Mass. 1997), 101–114, 113 for examples of Byzantine appreciation of Islamic art, including the Pavilion—but cf. Magdalino, Paul, *The Empire of Manuel I Komnenos 1143–1180*, (Cambridge 2002), 118, who believes it was built specifically to house Muslim visitors, so they would not defile icons etc.

⁸⁵ Makrizi, *Histoire d’Egypte*, IX, 51, 85: in 1194 the Emperor ordered the repair of a ruined mosque in Constantinople, and the construction of a new one; Kidonopoulos, *Bauten in Konstantinopel*, 142–3. Al-Muqaddasi (945–1000?) says there was a mosque in Constantinople in his day: *Best divisions*, 124.

CHAPTER SEVEN

EARLIER ISLAM

Introduction

Turn to the mansion in the hills, effaced by the blowing winds
At Khuld, formed of stone and tile,
And the polished marble with which it was faced,
And its gate, a gate of resplendent gold.¹

Built by the Abbasid Caliph Al-Mansur in his new circular city of Baghdad (762, and strategically located for trade by land, river and canal),² the marbled Al-Khuld Palace on the banks of the Tigris is a monument that Theophilus' ambassadors might have seen in the following century, provoking a "Byzantine-Muslim political and cultural rivalry mediated by an increasingly shared culture of objects."³ Byzantine ambassadors to Al-Mansur himself had encouraged him to add greenery to his gardens, so perhaps they also described to him the Great Palace in Constantinople,⁴ and provided the Caliph with constant reports of the wonders of that city. Certainly, Muslims traveled widely and profitably, as far as knowledge was concerned,⁵ and pondered on the vanity of human achievement.⁶ They could sometimes serve as conduits to knowledge of the wider world. For example Ibn Battuta, visiting

¹ Jarrett, H.S., trans., *Al-Suyuti, History of the caliphs*. (Calcutta 1881), 311: 813–14 AD poem by Abraham al Mahdi (on the murder of al-Amin). Alternative version and context in Al-Tabari XXXI.196 for 813.

² Al-Tabari XXVIII.243 for 762–3.

³ Keshani, Hussein, "The 'Abbasid Palace of Theophilus: Byzantine taste for the arts of Islam," *Al-Masaq* 16.1, March 2004, 75–91.

⁴ Littlewood, A.R., "Gardens of the palaces," in Maguire, Henry, ed., *Byzantine court culture from 829 to 1204*, (Dumbarton Oaks 1997), 13–38: see 21–2. And cf. 19: Theophilus supposedly accepted suggestion of his ambassador in 829/30 that he build the Bryas Palace in the style of Abbasid palaces.

⁵ *Touati, Houari, *Islam et voyage au Moyen Age. Histoire et anthropologie d'une pratique lettré*, (Paris 2000): an extremely rich and learned overview of travel, including those who did it only via a library.

⁶ Koran 40.82, in Pickthal's translation: "Have they not travelled in the land to see the nature of the consequence for those before them? They were more numerous than these, and mightier in power and (in the) traces (which they left behind them) in the earth. But all that they used to earn availed them not."

Constantinople in 1332, was quizzed by the Emperor Andronicus III: "He questioned me about Jerusalem, the Sacred Rock, the Church of the Holy Sepulchre, the cradle of Jesus, and Bethlehem, and about the city of Abraham [Hebron], then about Damascus, Cairo, Iraq, and Anatolia, and I answered all his questions about these."⁷

Islam cannot of course have the primacy in post-Western-Empire marbled building, since the palm goes to Justinian's Constantinople. He also carried out enormous refurbishments at (for example) Antioch and Apamea.⁸ In the former, a main church was perhaps a converted temple.⁹ In the latter the colonnades, fragmentary and still very impressive, originally covered some two kilometres. But Islam is a focus of artistic, intellectual and economic relations with the West,¹⁰ opening trade routes on a wider world. She had large populations in her vigorous cities,¹¹ and travel was common, for motives ranging from pilgrimage and learning to geographical curiosity.¹² With the Dome of the Rock (687–91) and the Umayyad Mosque at Damascus 706–15), it is Islam which produced the most prestigious buildings (including new cities) around the Mediterranean until the great Romanesque cathedrals, and that primacy is the subject of this chapter.¹³ The great buildings of the past, although not thoroughly imitated by Islam, were admired. We should remember the large number of Christian churches in Syria and North Africa, many sumptuous and some very large,¹⁴ which were available for study and, sometimes, spoliation, usually but not always in

⁷ Ibn Battuta, *Travels*, online at <http://www.fordham.edu/halsall/source/1354-ibn-battuta.html>. Cf. Reinaud, *Géographie d'Aboulfêda*, II, 133: he obtained information about the "Land of Rhum" from pilgrims he questioned in 1321.

⁸ For a splendid summary, see Monneret de Villard, Ugo, *Introduzione allo studio dell'archeologia islamica*, (Venice 1966), with supplementary bibliographical notes by O. Grabar.

⁹ Makrizi, *Histoire d'Égypte*, IX 37 note 2 for the temple of Mars and the church to the Virgin.

¹⁰ *Crespi, Gabriele, *L'Europe musulmane*, Milan 1982.

¹¹ Lombard, Maurice, *Espaces et réseaux du haut moyen âge*, (Paris 1972), 41ff., 65f.

¹² Roldán Castro, Fátima, "El viaje en el mundo araboislámico durante la edad media: la peregrinación y la búsqueda del saber," in Beneito, Pablo, & Roldán, Fátima, eds., *Al-Andalus y el norte de África: relaciones y influencias*, (Seville 2004), 223–50.

¹³ Hillenbrand, Robert, *Islamic architecture: form, function and meaning*, (Edinburgh, 1994). Ewert, Christian, & Wisshak, Jens-Peter, *Forschungen zur almohadischen Moschee, Lieferung I: Vorstufen*, (Mainz 1981) for typologies.

¹⁴ Sodini, Jean-Pierre, "Les églises de la Syrie du nord à l'époque paléo-chrétienne," in Dentzer, Jean-Marie, & Orthmann, Winifried, eds., *Archéologie et histoire de la Syrie, II: La Syrie de l'époque achéménide à l'avènement de l'Islam*, (Saarbrücken 1989), 347–72.

exceptional circumstances.¹⁵ A very few classical cities were also rebuilt: Baladhuri says Al-Mansur rebuilt Mopsuestis (near the Mediterranean coast of Anatolia), including a great mosque.¹⁶

This chapter first discusses the parameters of Islamic building, outlining why little is known about the veritable explosion of sometimes large projects from c.700. It then examines what has survived, some almost as-built, other buildings radically altered because of earthquakes, dynastic change, and/or megalomania. The context is often the whole Mediterranean, and events in European culture should be borne in mind when discussing developments in Islam.¹⁷

Muslim rulers were well aware that they competed with the past when they built. Thus Ali b. Al-Jahm welcomes one of Al-Mutawakkil's Samarra palaces as "The Badi, which the Persians and the Romans/ Could not rival with their edifices."¹⁸ Such rulers were also aware that building cities was an integral part of kingship. Al-Yaq'ubi writes of Al-Mutawakkil's move to a palace in Samarra [Al Ja'fariyya] in 879: His pleasure was complete, and he said, "Now I know that I am a king, for I have built myself a city in which to live."¹⁹ This appears to have been a common sentiment, for Ibn Hawqal (writing in 977 but excerpting earlier authors) approves of the monuments of Alexandria. These he considers "authentic monuments of her ancient inhabitants, eloquent witnesses of royalty and power, which proclaim her domination over other countries, and which form a warning and an example. These are enormous blocks of stone, tangible proofs of civilization."²⁰ Rare stones—such as the lapis lazuli incorporated with gold into the dome of the portico of the Haruni Palace at Samarra²¹—reflected and emphasized such power, as did marble.

¹⁵ At Aleppo 4 churches were converted into mosques because the Crusaders had committed atrocities. Yousif, Ephren-Isa, *Les chroniques syriaques*, (Paris 2002), the Anonymous Edessan writes (207) that in 787 Harun al-Rashid ordered the demolition of churches to the W of the river Sanga, and used their materials to rebuild the ramparts of Hadat, a town between Melitene and Samosat, carrying the materials in over 2000 carts.

¹⁶ Al-Tabari XXVIII.71, for 758–9.

¹⁷ Scarcia Amoretti, Biancamaria, & Baldazzi, Cristiana, "Cronologia storica degli eventi culturali," in Capaldo, Mario, et al., eds., *Lo spazio letterario nel medioevo: 3: Le culture circostanti. II: La cultura arabo-islamica*, (Rome 2004), 782–877, deals with Europe and Islam.

¹⁸ Shamsuddin Miah, M., *The reign of Al-Mutawakkil*, (Dacca 1969), 314.

¹⁹ Northedge, Alastair, *The historical topography of Samarra*, (London 2005), 272.

²⁰ Ibn Hawqal, *Configuration*, I.148.

²¹ Al-Tabari XXXIV.12.

This theme of the solidity of the civilized past we find even among the sceptics. Thus Al-Harawi (d.1215) can marvel at the size of granite statues at Luxor, including one which was 3.2m elbow to fist. He then wrote on its bust (with a palm frond—not engraved) the Bismillah and then various thoughts about *sic transit*, including “Where are the powerful? The first Chosroes? The treasures they amassed have disappeared, and they with them.” Of course, he forgets that the statue was just such a bid for eternity.²² Although pre-Islamic Arabia was emphatically in part a settled civilization, Ibn Khaldun (born 1332, and a thoughtful “historical sociologist” before the concept even existed in the West) provides a rationale for monumental civilization which privileges permanence as the gift of great builders—at the same time as he charts the inexorable decline of all civilization.²³

Monumental constructions required effort and skill, as Ibn Khaldun remarks. Marble was the material of preference for internal support and internal (and sometimes external) decoration, so large quantities were shipped and dragged from where the Romans had left them to where the Moslems needed them—to the new cities of Kufah (638), Baghdad (762), Kairouan (670), Tunis (after 697) and Cairo (969).²⁴ Marble was used to beautify Mecca and Medina, perhaps as a result of Meccan trading contact with Byzantine Syria,²⁵ and to transform Córdoba from a provincial town nearly on the edge of the world to a very deliberate contender for the glory given to Damascus.

Because the *Mirabilia* tradition starts earlier in Islam than in the West, observation by the Moslems of the Justinianic achievement went hand-in-hand with (and provoked?) a series of myths and tall stories of how extravagantly marble was sometimes employed. Thus, according to an early 9thC account, the Ghumdan palace in San’a (Yemen) was seven stories tall, the highest room being of polychrome marble, and its roof a single slab of green marble. “Statues of lions at each of Ghumdan’s four corners roared as the wind blew through them,”²⁶ and it might conceivably have had walls of alabaster, perhaps from local

²² Al-Harawi, *Guide*, 104.

²³ Excerpts with some commentary given on dvd *ibn_khaldun_extracts.doc*.

²⁴ Wheatley, *The places where men pray together*, 39ff. for context.

²⁵ Crone, Patricia, *Meccan trade and the rise of Islam*, (Princeton 1987), 162.

²⁶ Khoury, Nuha N.N., “The Dome of the Rock, the Ka’ba, and Ghumdan: Arab myths and Umayyad monuments,” *Muqarnas* X 1993, 57–65; see 60.

quarries.²⁷ Such accounts could simply have been exaggerations of the continuing prosperity of richly-marbled Christian churches, but they are also informed by the Arabic literature of marvels.²⁸ Thus the far-away Cathedral at Bosra, with its 37-metre-wide central space, perhaps surmounted by a dome (Haghia Sophia's dome is 31 metres wide), was still in use well over a century after the Islamic takeover of Syria.²⁹ Fragments of cipollino were found inside it, similar to the columns in the Mosque of Umar in the same city—so perhaps that was their origin.³⁰ Sites like Jerash and Madaba show some degradation of the urban environment,³¹ and others such as Huarte were soon plundered.³² But Yemen also had its own Christian and pre-Islamic monuments, both sources for re-use. These were incorporated into mosques in San'a and elsewhere, including the Great Mosque, in large quantities.³³ The mid-6th-century cathedral might already have contained large amounts

²⁷ Makrizi, *Histoire d'Égypte*, IX, 124 note 6: the square structure had walls that were red, white, green and yellow, while the belvedere on top had, as well as the monolithic roof, "marble of all colours". James Harrell suggests that this would have been travertine, but the dense variety of this stone, a.k.a. 'Arabian alabaster,' although it was rarely used in medieval Yemen.

²⁸ Rubiera Mata, *Arquitectura en la littérature arabe*, 27–44 for mythical palaces; and 45–54 for Solomon as the great builder, helped of course by djinns. Al-Tabari XXIX.5 for the five iron gates at Zandaward made by his djinns, and carried to Baghdad in 763/4.

²⁹ Foss, Clive, "Syria in transition AD 550–750: an archaeological approach," *DOP* 51 1997, 189–269; see 193, 208, 243; Barnes, Timothy D., "Late Antiquity and Early Islam: a review essay (1996–1997)," *Al-Masaq* IX 1997, 191–9.

³⁰ Butler, Howard C., *Ancient architecture in Syria, IIB: Northern Syria*, II, (Leiden 1907), 281–6.

³¹ Walmsley, Alan, "The Islamic city: the archaeological experience in Jordan," *Mediterranean Archaeology* 13 2000, 1–9: churches at Madaba encroach on the street colonnade of the main decumanus; Jerash uses antique blocks to build churches, and for the defensive walls; temples persisted "as a decaying feature" there, "but were not pulled down due to their massive size".

³² Canivet, P. & M.T., *Huarte: sanctuaire chrétien d'Apamène (IV^e–VI^e s.)*, (Paris 1987), 317.

³³ Costa, Paolo M., "The Great Mosque of San'a," in his *Studies in Islamic architecture*, (Aldershot 1994), II, 1–16: re-used antiquities at plates 22–5, and list of pre-Islamic material at 11–16—52 entries in all. Some capitals bear Greek crosses, so could have come from the cathedral. Ibid., "Problems of style and iconography in the South-Arabian sculpture, in his *Studie*, IV, 19–39, for classical marble re-used in Srba Mosque (at Yarim, Yemen), perhaps taken from ancient Zafar. The Musa Mosque (San'a, 14thC) has a pre-Islamic (figs 12–15) column with formalized knot-work and vine-leaves. The author suggests (32) that many of the pieces in the Great Mosque at San'a may have come from the ruins of Ghumdan.

of antiquities.³⁴ Indeed, the country was rich in large building blocks and some marble.³⁵

So any notion of wild invaders destroying everything in their path must be banished for Syria,³⁶ where the Muslim invasions leave no trace of destruction in the archaeology, and where Christianity often continued to thrive and to build.³⁷ This was useful because the Muslims taxed non-believers, and all lived in a prosperous landscape so different from that of contemporary Italy.³⁸ Indeed, “When the Muslim Arabs took over Syria only six years after the Persians left, they found a country whose society and economy were still intact,”³⁹ with churches and mosaic pavements as indexes of prosperity.⁴⁰ Not only were the clergy and church at Bosra left alone but, except for Ramla and Anjar, the Moslems did not found new cities in Palestine or Syria, preferring to inhabit existing ones, and re-use the materials—hence the large antiquities content of the Mosque of Umar at Bosra. If Antioch and Apamea were in decline, Rusafa was a peak cult site in the 6th

³⁴ Butler, A.J., *The Arab Conquest of Egypt*, (London 1902), 147: “Lofty columns of precious marble divided the nave from the aisles. The spaces above the columns, the apse and the upper part of the walls, were adorned with magnificent mosaics in gold and colours, or embellished with paintings. The lower part of the walls was panelled, and the floor was paved with marble of many hues.”

³⁵ Halévy, Joseph, “Rapport sur une mission archéologique dans le Yemen,” *Journal Asiatique* 6th series XIX 1872, 5–98. See 29ff. for Medinet Haram: its templewalls have gone, and the marble slabs of which they were built lie broken on the sand; the ceiling also of marble slabs, supported on square pillars; 49 for Mareb: “immense ruin, with a profusion of marble columns such as I have not seen elsewhere”; 32 for town of Me’in, with the fortress “built from enormous cut-stone blocks . . . many carry inscriptions which are often of prodigious dimensions” and a mosque built with antiquities.

³⁶ *Walmsley, Alan, *Early Islamic Syria: an archaeological assessment*, (London 2007). Perhaps also for parts of Turkey: cf. Serin, Ufuk, *Early Christian and Byzantine churches at Iasos in Caria: an architectural survey*, (Vatican City 2004), 202 note 12 for the evidence.

³⁷ Walmsley, Alan, “Production, exchange and regional trade in the Islamic east Mediterranean: old structures, new systems,” in Lyse Hansen, Inge, and Wickham, Chris., eds., *The long eighth century*, (Leiden 2000), 265–343; see 268 for churches at Rihab, and 282 for the Umayyad marketplace at Baysan, with an arcade on classical columns.

³⁸ Liebeschütz, Wolf, “Late late antiquity in the cities of the Roman east,” *Mediterraneo antico: economia, società, cultura*, III.1 2000, 57–75.

³⁹ Foss, Clive, “The Persians in the Roman Near East (602–630 AD),” *Journal of the Royal Asiatic Society*, 13.2, July 2003, 149–170; see 170, and 164 for a similar calm in Palestine.

⁴⁰ Dauphin, C., “Mosaic pavements as an index of prosperity and fashion,” *Levant* XII 1980, 112–34, especially 123–5; 126: explains the use of mosaic in floors, and the ousting of marble slabs, because all marble had to be imported; and points out Eudoxia donated 30 columns of green marble to the church at Gaza. Cf. Mango, *Sources and documents*, 31–2 for Mark the Deacon’s text.

century, and Aleppo, Hama, Homs and Damascus were thriving in the 7th–8th centuries.⁴¹ The church at Qasr Ibn Wardan was part-spoliated of its imported marbles, surely because this was a rare example (like the Cathedral at Bosra?) of the luxury of metropolitan—Constantinopolitan—architecture. “Rare marbles of various colours appear in the shafts of the interior columns of the church, and a pure white crystalline marble is found in the capitals... the heavy string course of the triforium... is of beautiful yellow marble (giallo antico).”⁴² Two fine capitals are now in the Museum at Aleppo.

The Moslems also extended their horizons beyond Arabia and Syria, and hence their knowledge and their booty, for raiding was assiduous, as was conquest, and often of marble-rich entities. They took Aegina in 826, then Crete and Sicily; they sacked Thessaloniki in 904, exacted tribute from Naxos, and ruled over Paros.⁴³ Nor did they invent the spoliation of Roman buildings: Syrian marble and mosaics were sent to the court of the 6thC Sasanian ruler, Chosroes I Anushirvan, as part of a peace deal, while in the early 7th century, marble plundered from churches in Palestine was sent to Ctesiphon, the shell of part of which survives.⁴⁴ We are well-informed on the lighter, more precious gifts brought by embassies.⁴⁵ And we shall see below that sending to the Byzantine emperor for columns or mosaic tesserae is something of a leitmotif—so was marble ever a part of ambassadorial gifts? Pharaonic stone objects were sent to the Umayyad Caliph in Damascus, and Umar (ruled 717–20) apparently delighted in showing them to visitors.⁴⁶

Difficulties in investigating early Islamic architecture

Three general problems predominate in investigating early Islamic architecture.

⁴¹ Wickham: *Framing*, 620.

⁴² Butler, *Ancient architecture in Syria*, I, 27.

⁴³ Setton, Kenneth M., “On the raids of the Moslems in the Aegean in the ninth and tenth centuries and their alleged occupation of Athens,” *AJA* 58.4 Oct 1954, 311–19.

⁴⁴ Flood, Finbarr Barry, *The Great Mosque of Damascus: studies on the makings of an Umayyad visual culture*, (Leiden 2001), 23 & note 39.

⁴⁵ Schreiner, Peter, “Diplomatische Geschenke zwischen Byzanz und dem Westen ca.800–1200: eine Analyse der texte mit Quellenanhang,” *DOP* 58 2004, 252–82.

⁴⁶ El Daly, Okasha, *Egyptology: the missing millennium. Ancient Egypt in medieval Arabic writings*, (London 2005), 41–2.

The first problem is the lack of consistent evidence about what effect the transition to Islam had on architectural survival. There continues to be doubt over the state of some of the towns and economies in areas taken over by Islam, and hence for our purposes the availability of building stock for re-use. In Syria the economies were neither dead nor dying, nor was Bosra the only Christian church to thrive long after the advent of Islam. But conditions in North Africa were perhaps different. If Augustine's letters are to be believed (and he is not a neutral observer),⁴⁷ North Africa was declining in the 5th century. But thereafter the architecture built or refurbished shows it revived (or simply continued).

The second problem is the deliberate destruction by Moslems of Islamic monuments built by rival dynasties or even forbears. For if Islam is a great building civilization, why are survivals from the earlier centuries so spotty, especially in civil architecture? Because there is a propensity for rulers interested in building to make their mark by destroying the structures of their predecessors and erecting something more splendid: see below, the section entitled "Grandeur and Ashes." There are later reports of this happening at Kairouan (provoked by dynastic change), and evidence of "obliterating restoration" (not wholesale destruction) in Damascus and Jerusalem. In civil architecture the problem is acute: we know so little about the decoration of early palaces and villas precisely because of the practice of carting the columns and veneers off to a new structure, and letting the old one decay. One exception, Khirbat Al-Mafjar, shows the main decoration to have been stucco, but with some marble. It was perhaps similar to Khirbat Al-Minya (near Lake Tiberias), built by Al-Walid (705–15) as proclaimed on a marble inscription, where marble covered the dadoes and glass mosaic the dome.⁴⁸

The third problem is that there are too few archaeologists and often poor or non-existent publication records (although the situation is perhaps improving). If the Middle Ages have in the past been badly served by archaeology, so that scholars are thrown back on written materials, then the recent amelioration in the West has not been matched by developments in Islamic archaeology. This is problematic not least because of

⁴⁷ Lepelley, Claude, "La crise de l'Afrique romaine au début du V^e siècle, d'après les lettres nouvellement découvertes de Saint Augustin," *Académie des Inscriptions et Belles-Lettres, Comptes Rendus* Jan–March 1981, 445–63; see 449.

⁴⁸ *EI Khirbat Al-Minya*.

the dearth of the kinds of charters, manuscripts and letters which can sustain mediaeval enquiry in the West.⁴⁹ Not only is the rate of excavation lower, but its reporting has been fragmentary, because people were often more interested in what was underneath,⁵⁰ and because even at Islamic levels there has been too much bad archaeology and insufficient publication of results.⁵¹ Hence for our topic much remains to be done in (for example) North Africa,⁵² and many questions about transition cannot be answered because so few sites have been investigated. “Only the great Islamic buildings, such as mosques or fortresses on the coast (for example in Kairouan, Monastir⁵³ or Sousse) are known to date,”⁵⁴ while in the Maghreb “much energy has gone into discovering urban beginnings but far less into subsequent development and/or demise.”⁵⁵ Art historians are sometimes judged to be of little help because, unlike archaeologists, they cannot interpret primary material and their viewpoint is consequently too narrow.⁵⁶ Nevertheless, to the art historian writing this book many of the difficulties facing our studies can be sheeted home precisely to the very prejudices and ideological biases of those ancestors of today’s archaeologists who so frequently discarded (should this verb remain in the past tense?) Islamic levels in favour of the Roman material beneath. This happened in Sicily; and had Spanish fervour for the past been directed to her Islamic remains (rather than

⁴⁹ Johns, Jeremy, “Archaeology and the history of early Islam: the first seventy years,” *JESHO* 46.4 2003, 411–436—partly on the problematic nature of Islamic literary sources; Blair, Sheila S., & Bloom, Jonathan M., “The mirage of Islamic art: reflections on the study of an unwieldy field,” *Art Bulletin* 85.1 March 2003, 152–84; Vitelli, Giovanna, *Islamic Carthage: the archaeological, historical and ceramic evidence*, (Tunis 1981), 1–2, 48.

⁵⁰ Walmsley, “Production, exchange and regional trade,” 266.

⁵¹ Vernoit, Stephen, “The rise of Islamic archaeology,” *Muqarnas* 14 1997, 1–10.

⁵² Vismara, Cinzia, “Aetas succedit aetati. Il riuso di elementi “classici” nelle città africane sino all’età islamica,” in Giannattasio, Bianca Maria, ed., *Atti X giornata archeologica. Il passato riproposto: continuità e recupero dall’antichità ad oggi*, (Genoa 1999), 69–91.

⁵³ Gabrieli, Francesco, et al., *Maghreb médiéval. L’apogée de la civilisation islamique dans l’occident arabe*, (Aix en Provence 1991), fig 42 for the Aghlabid Mosque at Monastir, with many re-used columns and capitals.

⁵⁴ Sauro Gelichi & Marco Milanese, “The transformation of the ancient towns in central Tunisia during the Islamic period: the example of Uchi Maius,” *Al-Masaq* 14.1 March 2002, 33–45—i.e. 100km SW of Tunis; see 42.

⁵⁵ Roskams, Steve, “Urban transition in North Africa: Roman and medieval towns of the Maghreb,” in Christie & Loseby eds., *Towns in transition*, 159–83; see 160.

⁵⁶ Northedge, Alastair, “Archaeology and Islam,” in Barker, Graeme, ed., *Companion Encyclopedia of Archaeology*, (London 1999), 2 vols, 1077–1106; see 1080 for quotes.

to Rome and the Bay of Naples),⁵⁷ we should know more about Islam in that peninsula as well.

These three problems in their turn provoke three questions, which help illustrate the problems in dealing with Islamic material. The first is the development of pleasure palaces, such as those in Jordan, and the matter of any relation they might have to Roman and Byzantine models,⁵⁸ such as churches.⁵⁹ Parts of several survive, and this from centuries when little survives about ground in Christendom. But we are badly informed about them in spite of some excavation—not least because we lack comparanda within any sensible date-range. The Palatine in Rome, and Spalato, are too early; the Great Palace in Constantinople is too fragmentary; little is known about Pavia or Ravenna. Some Islamic palaces did have marble columns and perhaps marble wall veneer, but we have no descriptions of them in their prime. For the Great Palace, there are partial descriptions, but the structure has largely disappeared. Baalbek, for example, much impressed Moslems for its immense blocks and columns,⁶⁰ but also for the Ayyubid palace built in the citadel, the remains of which (helped no doubt by old marble) were judged “imposing and royal, and of a rare beauty.”⁶¹ Decorated marble slabs and opus sectile have been found there which bear out these impressions.⁶²

The second question is whether Islamic example provoked the West to any of its supposed revivals of the antique and re-use of Antiquity’s materials? Islam and the West share the same problems, because of destruction and replacement. For although some sumptu-

⁵⁷ *Mora, Gloria, *Historias de mármol. La arqueología clásica española en el siglo XVIII* (Anejos de Archivo español de arqueología XVIII), (Madrid 1998); e.g. 104–106 for Mérida, where the interest is Roman, not Visigothic or Islamic.

⁵⁸ Falla Castelfranchi, Marina, “Alcune osservazioni sulle relazioni artistiche tra Omayyadi e Bisanzio,” in Quintavalle, Arturo Carlo, ed., *Medioevo: il tempo degli antichi*, (Milan 2006), 167–79: largely on mosaics.

⁵⁹ Paribeni, Andrea, “Osservazioni sui mosaici pavimentali dei palazzi omayyidi,” in Quintavalle, Arturo Carlo, *Medioevo: arte lombarda*, (Milan 2004), 634–42 compares Qasr Al-Hallabat with S Paul at Um-Al-Rasas, and the Siyagha Monastery at Mount Nebo with Khirbat Al-Mafjar.

⁶⁰ Al-Harawi, *Guide*, 24: equalled only by Persepolis.

⁶¹ Gaudefroy-Demombynes, Maurice, *La Syrie à l’époque des Mamelouks d’après les auteurs arabes: description géographique, économique et administrative*, (Paris 1923), 72.

⁶² Gaube, Heinz, & von Gladiss, Almut, “Säulen unter dem arabischen Halbmond. Baalbek in islamischer Zeit,” in Van Ess, Margarete, & Weber, Thomas, eds., *Baalbek: im Bann römischer Monumentalarchitektur*, (Mainz 1999), 72–87; see figs 82a–c, 84.

ous Islamic buildings survive from the late 7th century onwards, there are few in an unmutilated (because enlarged, or semi-destroyed) state. Similarly, any prestigious Christian buildings from the same centuries (and which often did boast marble, as the written sources assure us) have usually been replaced by a larger one in what we might call the “white mantle” paroxysm after the Millennium. We cannot doubt the continuing example of Early Christian architecture as an impulse to mediaeval church building, especially that of big basilicas such as the Constantinian basilica of S. Peter’s in Rome. But it was churches not too different from S. Peter’s that Moslems and their architects (some of them Christians) could see in Syria, and the ruins of which are still imposing today. Antioch and Apamea were very rich in Christian mosaics, but Palestine infinitely richer—surely sometimes an inspiration to the builders of great Islamic structures.⁶³ So given the trading and diplomatic relations around the Mediterranean, the notion of Christians admiring the grandeur of Islamic architecture is not far-fetched, and will be dealt with in a later chapter.

The third question is related to the second, and asks whether the Moslems, during their raids on the Italian peninsula, carried off any marble? There is evidence, if tentative, only in the other direction: the Pisans’ Mahdiya raid contributed to the building of the Pisa Duomo, but we cannot know whether marble was carried off together with other valuable items (silks, artworks).⁶⁴ But then, when the Moslems raided Italian cities, what was there other than slaves, marble and metals to carry away except for wood, of which they were perennially short? Again, how about the sites we know they visited, and where Arabic graffiti have been found, such as Iasos, Didyma and Knidos?⁶⁵

⁶³ Bonfioli, Mara, “I mosaici pavimentali siro-palestinesi e le decorazioni delle moschee di Jerusalemme e Damaso,” in Guiglia Guidobaldi, Alessandra, & Iacobini, Antonio, eds., *Bisanzio e l’Italia: scritti di archeologia e storia dell’arte*, (Rome 2002), 17–43, with a host of comparanda.

⁶⁴ Amari, *Musulmani di Sicilia*, III.170–3 for Arabic sources.

⁶⁵ Serin, Ufuk, *Early Christian and Byzantine churches at Iasos in Caria: an architectural survey*, (Vatican City 2004), 13. Caria was conquered by the Seljuk Turks 1093–5 and remained under them until 1291.

Large building projects

“Put not thy finger in the mortar” was Lord Burghley’s advice, and early Muslims were also alert to the ruinous expense of building. In his accession speech Caliph Yazid ibn Walid (744 AD) had to promise not to lay “stone on stone, brick on brick, or dig canals.”⁶⁶ For the Muslims developed early a taste for building large urban complexes (with Baghdad the largest for centuries).⁶⁷ Building in marble could be yet more expensive. The characteristics of marble re-use in Islam probably parallel those in Christianity in the early Middle Ages, in that in both there seems to have been a distinct absence of civic (rather than religious or personal) monuments and grand spaces in the Roman manner, and an obvious contrast with Byzantium. The result is that the large projects are palatial or religious, rather than civic. Planhol sees the Islamic city as carrying the weight of a nearly complete absence of municipal organisation, in contrast to that civic pride characteristic of the Roman tradition, with the consequence that civil public space and the projects of powerful individuals encroached over what might have been communal space.⁶⁸ In this perspective the mosque becomes in one of its roles a forum-substitute.⁶⁹ Gone are the civic ensembles and grand vistas of the Romans, and the mosque and the palace, as well as public baths,⁷⁰ become the focus of life and of marble re-use. They usually look inwards, so that façades can be less important than courtyards. In consequence the Roman civic ensembles themselves are now supernumerary, and when not occupied by squatters are often the quarries from which the marbles are removed. But an additional gift from the Romans to Islamic Syria survived and prospered, namely the systematic use of dressed stone in her monumental constructions,⁷¹

⁶⁶ Northedge, Alastair, *Studies on Roman and Islamic Amman*, I, (Oxford 1992), 51.

⁶⁷ Micheau, Françoise, “Les sources pour les mégapoles orientales,” in Nicolet, Claude, et al., eds., *Mégapoles méditerranéennes. Géographie urbaine rétrospective*, (Paris 2000), 685–99, with a league-table at 691.

⁶⁸ Planhol, Xavier de, *Les fondements géographiques de l’histoire de l’Islam*, (Paris 1968), 51. Kennedy, Hugh, “From Polis to Madina: urban change in late antique and early Islamic Syria,” *Past and Present* 106 Feb 1985, 3–27.

⁶⁹ Brett, Michael, *The rise of the Fatimids. The world of the Mediterranean and the Middle East in the fourth century of the Hijra, tenth century CE*, (Leiden 2001), 51f. for context.

⁷⁰ Grotzfeld, Heinz, *Das Bad im arabisch-islamisch Mittelalter: eine kulturgeschichtliche Studie*, (Wiesbaden 1970), 42–3, and 145–7 for 13th-century descriptions of baths in Cairo and Baghdad.

⁷¹ Sauvaget, Jean, “L’architecture musulmane en Syrie, ses caractères, son évolution,” *Revue des arts asiatiques* VIII/1 1934, 19–51; see 21; and cf. Lenzen, Cherie J., “Seek-

sometimes by Christian craftsmen, thereby distinguishing that country from Iraq, Egypt & Persia, which built in brick.

Such large projects required engineering skill, and especially the ability to lift, move and place large loads accurately. Hero of Alexander, best known for his book of ingenious if frivolous mechanical devices, also produced a "Mechanics," and the one illustrated version which has come down to us is in Arabic, which might (or might not) be significant.⁷² The illustrations are for pulleys and deadlegs, for getting large stones down from high mountains, lifting large columns and sitting them on their bases, and machines for lowering heavy stones into the sea. The text also deals with the problem of how far apart to put columns to support a known weight of entablature. All of these would have been techniques necessary for both building and dismantling buildings: even getting stones down from high mountains could be applied to crossing a country with bad roads, rather than just quarrying activities.

Many influential Islamic complexes have largely disappeared (Samarra, early Cairo) or been completely remade (Mecca, Medina),⁷³ and cities such as Tangiers have lost their Roman remains.⁷⁴ What survives on the ground or in descriptions demonstrates, however, that Muslims were constructing large buildings incorporating antiquities during a period when Christianity confined itself to churches which were small and (at least in terms of fixtures) sparsely decorated. If the Christians were fixated on variations of the Roman basilican plan, the Moslems came to architecture with no such preconceptions, and could therefore take what they needed from several traditions, using whatever discarded

ing contextual definitions for places: the case of north-western Jordan," *Mediterranean Archaeology* 13 2000, 11–24, for the change of Bilad al-Sham/Capitolias from Roman to Islamic times.

⁷² Hill, D.R., ed., *Héron d'Alexandrie, Les mécaniques ou l'élèveur des corps lourds*, trans B. Carra de Vaux, (Paris 1988). First edition Paris 1894, 97ff., 184ff., 195ff. A.G. Drachman's commentary, 273–7, has further illustrations from the Leiden MS of "a crane in the shape of a tripod lifting a base for a column," for pulleys showing how to lower a large weight down a mountain; and for "a column being shifted on its base by means of a lift built across a house or a wall, with a counterweight on the other side." Carra de Vaux translated the Arabic text of Qusta ibn Luqa (820–912) and redrew the illustrations. I have not seen the Arabic original.

⁷³ The latter in part by Qaytbay, who sent carpenters and marble-workers there after it was struck by lightning in 1481, supposedly spending over 100,000 dinars: *Ibn Iyas, Mamlouks*, 206–7: "il avait rétabli toutes les particularités et poussé à la perfection la décoration et les marbres."

⁷⁴ Ibn Hawqal, *Configuration*, I.75: "her ancient monuments are still visible, stone constructions still standing at the edge of the sea." Fagnan, *Afrique septentrionale*, 49: "A large and ancient town where there are many antiquities, grottoes, arcades, etc. . . Much marble is to be found there, and large dressed stones."

members they found suitable, such as reconfiguring church transennae for secular use, decomposing classical frieze elements,⁷⁵ or even taking over a classical temple for a mosque, as at Il Umtaiyeh, in Syria. But if their models were sometimes the huge basilicas of Syria, or the colonnaded streets of abandoned Roman cityscapes,⁷⁶ their typologies extended well beyond the domed or basilical plan to develop caravan-serais, madrasas, hospitals and minarets, as well as palaces.⁷⁷ These are new forms of architecture and decoration, sometimes fuelled by the Islamic injunction to charity (and hence endowment and supposed long-term survival of buildings), as well as by the example of Roman, Byzantine and Sassanian splendour, whose remains they use.⁷⁸ To see how intertwined such traditions can be, we should remind ourselves of the many mosaic floors in Madaba, and especially of the floors at Umm-Al-Rasas. Those in the church of Bishop Sergius are dated 587, while the spectacular ones in S. Stefano are of 756.⁷⁹ Hence those of the later church postdate Khirbat Al-Mafjar (Hisham? 724–43), elements of which they closely resemble. The origins of their newly-developed designs are naturally to be found in the Near East as well as in the classical and later buildings in the Byzantine Empire and North Africa—the lands which Islam conquered in stages.⁸⁰

Although in the southern regions of the West (Provence, Italy, or Spain) plenty of marble was to be found, the spur to its employment

⁷⁵ Schlumberger, Daniel, *Qasr el-Heir el Gharbi*, (Paris 1986), plates 68–9 for Qasr Al-Hayr el Gharbi's "transennae," now in Damascus; 23 for new uses for Roman frieze elements.

⁷⁶ Lepcis Magna had 200 columns in the Forum, and 250 in the Colonnaded Street, with 78 red Aswan monoliths of 6.8m or more in height: cf. Ward-Perkins, J.B., *The Severan buildings of Lepcis Magna: an architectural survey*, (London 1993), 89; Ball, Warwick, *Rome in the East: the transformation of an empire*, (London & New York 2000), 261ff. for colonnaded streets; 262: those of the colonnade at Tyre were of imported cipollino.

⁷⁷ *Wirth, Eugen, *Die orientalische Stadt im islamischen Vorderasien und Nordafrika. Städtische Bausubstanz und räumliche Ordnung, Wirtschaftsleben und soziale Organisation*, 2 vols (Mainz 2000), 15–58 for Near Eastern and Roman influences, and the gradual change of the urban fabric, colonnades into bazaars, etc., shown in town plans.

⁷⁸ Barsanti C., "Tunisia: Indagine preliminare sulla diffusione dei manufatti di marmo proconnesio in epoca paleobizantina," in de' Maffei, F., Barsanti, C., & Guiglia Guidobaldi, A., eds., *Milion: Constantinopoli e l'arte delle province orientali*, (Rome 1990), 429–436. Betsch, William E., *The history, production and distribution of the late antique capital in Constantinople*, PhD (UPenn 1977), 364–93 catalogues 198 exported capitals, and there are probably many more.

⁷⁹ Piccirillo, Michele, & Alliata, Eugenio, *Umm Al-Rasas I: gli scavi del complesso di Santo Stefano*, (Jerusalem 1994), 121ff.

⁸⁰ Wickham: *Framing*, 17ff. for Africa, 22ff. for Egypt, 26ff. for Syria and Palestine.

was not continuous from Roman times. Islam had huge stocks of marble available, which could feed the extravagant architectural visions of the early rulers. Population in North Africa, Syria and Anatolia was lower than in Roman times, and where there had been little local re-use or “sedentary civilization,” there was probably very little scavenging by the Christian West before the Millennium, and not much more until the 12th century. So large numbers of marble-clad and decorated buildings, many no doubt dilapidated or conveniently brought low by earthquakes, were available for spoliation. Christians could have known of this plentitude of marble through trade and diplomacy: for example, Abd Al-Rahman III (ruled 913–61) had contacts with Hugh of Provence (926–47).⁸¹ From what they built with marble, and the very size of the buildings, it is likely that architecture (and marble as part of it) was generally viewed as a prestigious device for asserting Islamic stability and civilization, and perhaps triumph—which, as we have seen, was Ibn Khaldun’s view.

Alert Muslims were well aware that the marble they so loved was pre-Islamic. After all, they had a clear date for the beginning of their religion, plentiful written accounts of their own great buildings, and a vigorous historical tradition some of whose practitioners made a use of evidence more careful and precise than did their Christian counterparts. They conquered great ruin-fields in North Africa, Syria and Egypt which emphatically had nothing to do with Islam. What is more, the origins for some great buildings (such as the Umayyad Mosque at Damascus) are recorded by historians and travellers—giving more data than we have for the Western equivalents. But then, Muslim travellers in our period were generally more numerous, energetic and observant than Western ones.⁸² Many of the settlements the Muslims founded were located in or near ruined antique cities.⁸³ Especially in Andalucía, there are more “continuing” towns than new Islamic ones,⁸⁴ and this

⁸¹ Renzi Rizzo, Catia, “I rapporti diplomatici fra il re Ugo di Provenza e il califfo ‘Abd al-Raman III: fonti cristiani e fonti arabe a confronto,” in Berti, Graziella, et al., eds., *Il mare, la terra, il ferro. Ricerche su Pisa medievale (secoli VII–XIII)*, (Pisa 2004), 247–77.

⁸² Calasso, Giovanna, “Esperienze e scritture di viaggio nell’Islam medievale: il mondo degli altri e il mondo dell’Islam,” in Capaldo, Mario, et al., eds., *Lo spazio letterario nel medioevo: 3: Le culture circostanti. II: La cultura arabo-islamica*, (Rome 2004), 379–408.

⁸³ Examples from the Maghreb in Wheatley, Paul, *The places where men pray together: cities in Islamic lands*, (Chicago 2001), 300–1.

⁸⁴ Pavón Basilio, *Ciudades hispano-musulmanas*, (Madrid 1992) for listings—17+ new as against 59+ built on earlier towns.

was perhaps part convenience, part emulation, since markers for the prestige of an antique site were large or enormous cut stones, Latin and Greek inscriptions, and Roman walls.⁸⁵ They lived day by day with Christians, the large implantation of whose churches could often provide useful materials; and there are plenty of examples of the takeover of marble-rich churches, even late ones such as the Panaghia in Antalya.⁸⁶ At S. Simeon, for example, the great pilgrimage church near Aleppo converted into a fortress by the Moslems, the marble floor of the central nave has a mosaic inscription 7.84m broad.⁸⁷ At Fa'lul, in Syria, the apse windows of the church had lintels of yellow marble in Butler's day, and he believes this was the source of the column-shafts of yellow marble and the white marble Corinthian capitals in the building to its south, when it was converted into a mosque.⁸⁸

At first in Islam size was a main consideration, well before luxury, and many large mosques were built,⁸⁹ so that the entire population could congregate for Friday prayers. An example is Kufa, where the mosque was supposedly laid out by having an archer shoot arrows to the cardinal points to determine dimensions. It was then built with marble columns taken from a Lakhmid site about four miles away.⁹⁰ Ziyad rebuilt it in 670, proclaiming that "On every one of the pillars of the mosque at Kufah, I spent 1800 [dirhams]"—surely because he quarried the stone, or had it dragged from afar. Al-Baladhuri maintains that likewise the pillars for the Al-Basrah mosque were fresh-cut, from Jabal Al-Ahwaz where a quarry was discovered⁹¹—demonstrating, if true, that quarrying did take place in mediaeval Islam. Unfortunately,

⁸⁵ Siraj, Ahmen, "Les villes antiques de l'Afrique du nord à partir de la description de Jean Léon l'Africain," *L'Africa Romana* IX, 1991, II, 919–38; 1485–1554; see 929–31 for a table of his reports.

⁸⁶ *Grassi, G., "Sculptura architetonica e spolia marmoree della Panaghia di Antalya nel quadro della produzione artistica dell'Asia Minore meridionale in epoca paleobizantina," in de'Maffei F., et al., eds., *Milion: Studi e Ricerche d'Arte Bizantina*, 2: *Costantinopoli e l'arte delle province orientali*, (Rome 1990), 73–114 plus 58 illus; 93–107 for Christian re-use in S. Turkey, and a list 111f. of late antique reworking—not just reuse—of antiquities.

⁸⁷ Obermann, Julian, "A composite inscription from the church of St. Simeon the Stylite," *Journal of Near Eastern Studies*, 5.1 1946, 73–82.

⁸⁸ Butler, Howard C., *Ancient architecture in Syria, IIB: Northern Syria*, (Leiden 1907), 97.

⁸⁹ Walmsley, Alan, & Damgaard, Kristoffer, "The Umayyad congregational mosque of Jarash in Jordan and its relationship to early mosques," *Antiquity* 79 2005, 362–78, fig 6 for total areas of early mosques in square metres.

⁹⁰ Creswell, K.A.C., in *El Architecture*.

⁹¹ Al-Baladhuri, *Origins*, 435–7.

little is left of the fittings of the Kufa mosque, but Djaït imagines its splendours under Ziyad, suggesting he found it with ceilings of Byzantine mosaics carried on marble columns taken from some Sassanian palace.⁹² Indeed, fragments of marble columns and capitals, as well as of opus sectile flooring, have been found there.⁹³

One particular aspect of Islamic mosque construction requires a mention here, because it affects Córdoba, Kairouan, Al-Azhar and other structures—namely the additive, almost infinitely elastic nature of the hypostyle hall type of building. Additions could be simply that, with no need to pull down and rework the existing structure, and without losing elegance, if the proportionality of the original structure was maintained as was indeed the case in Córdoba.⁹⁴ This approach to building is bound up with re-use for two reasons. The first is that a new aesthetic develops which appears far removed from Roman or Renaissance norms. This searches for ways of achieving height even when using short columns,⁹⁵ hence the emergence of very elongated capitals might be an elegant method of compensating for a lack of suitably tall shafts.⁹⁶ The second is that materials once carefully and usually tediously set in balance, level and load-supporting, are best left alone. They cannot be rejigged in any meaningful way (and certainly not heightened given the unchangeable dimensions of the old shafts) without bringing the whole structure down. Hence additions are best made without alteration to the existing setup except at the joins, as occurs for the various Córdoba extensions. Such “additive” techniques mean that we can occasionally compare how different generations used antiquities in their buildings, but only of course where we have a clear heritage: in effect this boils down to Córdoba, and perhaps Kairouan. That aesthetic conventions are different from our own is seen in at least one later case, where it is clear that the builders chose to use short

⁹² Djaït, Hichem, *Al-Kufa, naissance de la ville islamique*, (Paris 1986), 213; and cf. 173: “Stone was said to have been brought from Ahwaz (Susiana) to cut high columns (a typically Persian phenomenon dating from the Achemenids).”

⁹³ Allen, Terry, *Five essays on Islamic art*, (Manchester MI 1988), 66.

⁹⁴ Hillenbrand, Robert, “Medieval Córdoba as a cultural centre,” in Jayyusi, Salma Khadra, ed., *The legacy of Muslim Spain*, (Leiden 1992), 112–35, with an appendix 129ff. on the mosque.

⁹⁵ Vogt-Göknil, Ulya, *Frühislamische Bogenwände, ihre Bedeutung zwischen der antike und dem westlichen Mittelalter*, (Graz 1982), 8–9 for diagrams of the heights of important mosques, and 10–11 for scale drawings of the height and extension of mosque arcades.

⁹⁶ Marinetto Sanchez, Purificación, “El capitel en el periodo taifa,” *Capiteles corintios*, 145–66, plate 2.

column-shafts when long ones were available. Thus in the Resadiye Mosque at Silifke (1328), not only are capitals used to support the tall shafts of the portico, but the interior used sawn-off stumps of no more than eye-height supporting arcades.⁹⁷

Hence the hypostyle hall is radically different from the usual shed-construction Christian church.⁹⁸ The latter, supported on a finite number of columns, can with some difficulty be enlarged at various points but (except for lengthening: cf. Pisa) not overall without a complete rebuild. Whether this meant that churches “stayed put” with their existing complement of monolithic shafts until the great rebuildings of the Romanesque is a moot point, but likely. Conversely, a mosque could be expanded whenever the need arose and materials were available. Conceivably the *embarras de richesses* suffered so gladly by both Pisa and Venice led the former to develop colonnaded façades (plus the campanile) as a showcase for marble, and the latter to develop a most individual (not to say peculiar, and not soon imitated elsewhere) style of column placement on the façade of S. Marco that Maderno or Bernini would have appreciated. In neither case did the superfluity of columns mean another rebuild. In any case, how else could they have displayed their riches so effectively?

Grandeur and ashes: ruination and re-use

Two further characteristics separate Islamic⁹⁹ attitudes to architecture from those in the West and Byzantium. These are active and passive ruination, and shoddy basic construction, both of which have an impact on our study of marble and the structures which were built with it. As we have seen, there are strong currents amongst both Romans and Early Christians of distaste for luxury and the extravagancies that marble epitomised, as well as throughout the mediaeval West.¹⁰⁰ Moslems could

⁹⁷ Such techniques were not rare in churches either: cf. SM in Porto Fuori, Ravenna (12thC?); the crypt of S. Clemente a Casauria (9thC origins?), where some full-size capitals below eye-height support a miscellaneous collection of column-stumps. S. Pietro at Alba Fucens (Abruzzo), uses elegant cannellated drums inside to make up 6m+ shafts, but just one of these in the portico arcade.

⁹⁸ Pavón Maldonado, Basilio, “Entre la historia y la arqueología. El enigma de la Córboða califal desaparecida (II),” *Al-Qantara*, 9:2 1988, 403–24; see 417.

⁹⁹ Schlumberger, *Qasr el-Heir el Gharbi*, 14, plates 53, 55, 57c.

¹⁰⁰ Zanna, P., “Descriptiones urbium and elegy in Latin and vernacular in the early Middle Ages,” *Studi medievali* series 3 32 1991, 523–96; see 551: the sight of fallen buildings reminds the author of “the Ruin” of the fate of kingdoms.

share such sentiments, but it was standard practice in Islam to build for one's reign and, if possible, to annihilate the work of one's extra-dynastic predecessors, or the conquered. Even intra-dynastic "building solidarity" was scarce, with plentiful examples of building anew rather than occupying predecessors' structures, and of pulling down mosques to use the materials for something bigger and better (such as for Al-Nasir Muhammad's mosque in the Citadel at Cairo). But this will to uniform (to coin a phrase) had a special impact on urban palaces, which is why so little is known about them materially for Cairo—and, for Baghdad, all we have are descriptions. Sultan Mas'ud emptied the caliphal palace at Baghdad in 1135/6, leaving behind only four horses and eight mules to draw water. And in 1171/2 Saladin supposedly took ten years to sell off the contents of an unspecified palace at Baghdad, including over 100,000 bound volumes.¹⁰¹ As Gabriel Charmes remarks, in what might be interpreted as an orientalist phrase, in Islam ingenuity is plentiful but an interest in tradition is lacking.¹⁰²

This is a mentality strange to the West, for whom (with few exceptions and for good political reasons, such as the Golden House and Baths of Titus, and intensely political projects)¹⁰³ building stock was building stock, to be preserved, patched and updated when necessary, not least because occupation can spell triumph. That this could be done, and that Western buildings could be so long-lived (vide the Roman tenements part-surviving in the Via dei Botteghe Oscure in Rome today), is a tribute to construction techniques, to building for solidity. But some Islamic sites were very short-lived. Al-Mutawakkil nearly set a record for non-attendance at Samarra. He resided there for the first time in 853–4, fell ill, "transferred to Al-Haruni, the palace

¹⁰¹ Nègre, Arlette, ed., *Al-Dahabi: Les dynasties de l'Islam*, (Damascus 1979), 102, 146.

¹⁰² Charmes, Gabriel, *Cinq mois au Caire et dans la basse Egypte*, (Paris 2nd ed., 1880), I, 43: "the Arabs have a genius for masonry greater than that of any other race, and their thirst for construction is matched only by their lack of interest in maintaining what they have built. As long as this is covered by brilliant arabesques, admirable marbles and bronze chiselled with a rare perfection, it is small matter that all these are supported by a fragile foundation... Once a mosque or a palace is finished, they let it fall down, and likewise with towns. The Arabs prefer by far to build anew rather than to develop and embellish that which exists. And what is lacking in this race which has received all the gifts of imagination—fantasy, elegance, and taste—is any sense of continuity, of the love of tradition."

¹⁰³ Such as Julius Caesar's destruction of a building associated with Sulla, for a temple—a practice in which, claimed Tiberius (but wrongly), Augustus never indulged: Favro, *Urban image*, 63, 107.

of his brother Al-Wathiq...and ordered the demolition of Al-Burj, and minted that decoration as coin.” But on his death Al-Muntasir probably did attain the record. For according to Al-Yaq’ubi’s account, he spent only 9 months 3 days at the palace of al Ja’fariyya, after demolishing the palaces of Al-Mukhtar and Al-Badi and transferring the teak thence.¹⁰⁴ He then ordered “that they should demolish the residences, and transport the spoils from the residences to [Samarra]. The palaces of al Ja’fari, its houses, residences and markets fell into ruin in the shortest space of time, and the place became deserted with no population and no occupant, and the houses became a wasteland as though they had never been built or lived in.”¹⁰⁵ Although many of the materials could be recycled, his costs were huge—and in this rare case details have survived.¹⁰⁶ Other cities also got abandoned in short order: Anjar (founded by Al-Walid in 715ff.), an idealistic palace-city foundation,¹⁰⁷ was already praised in the 14th century for its “gigantic ruins,”¹⁰⁸ which survive today. But in most cases, the idea was to knock down the work of your predecessor so that your own constructions would shine the more brightly: thus in 1146 El-Moumin took Marrakech, and “built in the citadel a mosque of great beauty, and had the one built by Yousouf ibn Tachefin demolished.”¹⁰⁹

Not least because of this attitude to reign/regime change, Islam did not frequently build for solidity and durability. Moslem commentators often remark upon the fact, and many buildings demonstrate it. But also involved is the “building fury” of various rulers, which meant that solidity was impossible in the time-frames allowed (cf. Samarra, below). These attitudes have important consequences for marble use. Whereas in the West it is often seen as a symbol of eternity (tombstones, Shakespeare), in Islam marble decoration such as wall veneer—just like metal and wood¹¹⁰—is viewed as something transportable from a

¹⁰⁴ Al-Tabari XXXIV.155.

¹⁰⁵ Northedge, Alastair, *The historical topography of Samarra*, (London 2005), 239, 272.

¹⁰⁶ Shamsuddin Miah, M., *The reign of Al-Mutawakkil*, (Dacca 1969), 329–30.

¹⁰⁷ *Martinez Enamorado, Virgilio, “Los omeyas y la generación del urbanismo musulmán en Bilad al-Sam,” in Viguera Molins, Jesús, & Castillo Castillo, Concepción, eds., *El esplendor de los Omeyas cordobeses: La civilización musulmana de Europa Occidental*, (Granada 2001), 34–47, including the “desert palaces.”

¹⁰⁸ Reinaud, Joseph Toussaint, ed., *Géographie d’Aboulféda*, (Paris 1848), II, 7.

¹⁰⁹ Carra de Vaux, Baron, *Les souverains, l’histoire et la philosophie historique (Les penseurs de l’Islam, I)*, Paris 1921, 125, quoting Ibn el-Athir, 125.

¹¹⁰ Beril Tugril, A., “A radiographic study of the door of the Great Mosque (Ulu-cami) at Cizre,” *JNES* 55.3 1996, 187–94: Seljuk 13thC, has brass plates from more

ruined building to a new one. Structural elements were also moved, especially monolithic columns. (Of course, as we have already seen, the Romans rescued marble from ruined or obsolete structures when they could.) There are some instances where new buildings went up using the materials from those knocked down to make way for them. Such reconstructions follow from a desire to use monolithic columns as supports because, lacking special arrangements, they cannot be moved without destroying what they support. In most cases, however, it is not known where the material went. Qasr Al-Hayr West, for example, is now a shell with some stucco and fresco-as-marble-panel fragments; its antique decorated marble doorway lintel and jambs survives, but the marble and mosaic have been robbed out.¹¹¹ In one case, however, we do know: Yaqut writes of Al-Hayr, a palace at Samarra, on which Al-Mutawakkil spent 4m dirhams. "Then Al-Musta'in gave the materials from its demolition to his wazir Ahmad b. Al-Khasib."¹¹²

Jerusalem from Herod to Islam

Following the Islamic conquests, Palestine seems to most scholars to be no exception to the business-as-usual situation in Syria. If, for one, a "decline in the cities of Palestine from the beginning of the Islamic period to the end of the sixteenth century is undeniable,"¹¹³ others find prosperity continuing until the late 8th century.¹¹⁴ Its Byzantine mosaic floors suggest that all was well into the 7th century,¹¹⁵ but thereafter spoliation for the new Islamic Jerusalem denudes many structures. The Roman city supplied a lot of material, and Caesarea was a very attractive target, because marble to beautify it had been imported from Italy and the Eastern Mediterranean,¹¹⁶ and Christian monuments had

than one source; and incorporates more than one type of wood, suggesting parts of the wood of the door were recycled as well.

¹¹¹ The site is being excavated: cf. <http://www.slsa.ch/Projekte/QasrAl-HayrAl-SharqiE.htm>.

¹¹² Northedge, *Samarra*, 304.

¹¹³ Petersen, Andrew, *The towns of Palestine under Muslim rule: AD 600–1600*, (Oxford 2005); see 111.

¹¹⁴ Walmsley, Alan, "Production, exchange and regional trade in the Islamic east Mediterranean: old structures, new systems," in Hansen, Inge Lyse, and Wickham, Chris, eds., *The long eighth century*, (Leiden 2000), 265–343.

¹¹⁵ Dauphin, *Mosaic pavements*, 123.

¹¹⁶ Lazzarini, *Pietre e marmi antichi*: In primary (S) and secondary (S) use Caesarea Maritima has sienite (P), granito del foro (P), granito violetto (PS), marmo miso (P), breccia corallina (PS), cipollino rosso (PS), occhio di pavone (PS), sarcophagi in

profited from such riches.¹¹⁷ Aswan granite was brought from Egypt, though whether as material from once-standing structures or blocks stockpiled at the quarries is not known.

As an important focus of pilgrimage, Jerusalem has triggered a large number of travellers' descriptions,¹¹⁸ but it is often difficult to derive a coherent building sequence from these, let alone to square them with excavations or with what remains today. Hence, in an attempt to clarify a complicated building history for the following sections, here is a table of the various buildings on the Temple Mount/Haram Al-Sharif, plus those of rivals such as the Holy Sepulchre and the Nea. More than one entry indicates rebuilding or heavy refurbishment, and several of the dates are approximate:

<i>Date</i>	<i>Monument</i>	<i>Builder</i>	<i>Comments</i>
c.19 BC	Royal Portico etc.	Herod the Great	
c.325	Holy Sepulchre	Helena/Constantine	
Mid 6thC	Church of the Nea	Justinian	
630	Holy Sepulchre	Heraclius	rebuild
687–91	Dome of the Rock	Abd Al-Malik	
707–09	Al-Aqsa Mosque	Abd Al-Malik	
705–715?	Umayyad Palace	Al-Walid I	
749? earthquake	Al-Aqsa Mosque	Al-Mahdi	rebuild
749 earthquake	Umayyad Palace	was it rebuilt?	when abandoned?
1099ff.	Al-Aqsa Mosque	Crusaders	church added
1187	Haram incl. Al-Aqsa	Saladin	refurbished

lapis sarcophagus (P), rosso antico (PS), marmor lesbium (S), cipollino verde (P). The Romans made a similar 'sophistication' point when they imported marble sculpture for the E Baths at Jerash. Fischer, *Marble studies*, 232: Scythopolis and Samaria-Sebaste were also important; and if 252ff. Proconnesus was the main source of marble for architecture, sculptural marble came from a wider variety of quarries, incl Paros, Pentelikon, Thasos and Carrara.

¹¹⁷ Wickham: *Framing*, 622: Gaza rich and full of new building in the 6th century; Caesarea gave the martyr Anastasios a shrine in the 630s "in a new church beside the tetrapylon at the city centre, a clear sign of the continued relevance of the old public monumental structure there."

¹¹⁸ *Peters, F.E., Jerusalem. *The Holy City in the eyes of chroniclers, visitors, pilgrims and prophets from the days of Abraham to the beginnings of modern times*, (Princeton 1985). Excellent pages on sources for mediaeval Jerusalem (parallel texts) at: <http://homepages.luc.edu/~avandel/jerusalem/accounts/index.htm>

Herod and Monumental Architecture

Islamic and Crusader use of marble at Jerusalem depends partly on the actions of Herod the Great. Using ideas and styles he had no doubt seen in Rome, he developed an extensive building program of truly monumental constructions,¹¹⁹ such as his Temple of Augustus at the Paneion. But in spite of the assertions of Josephus, his buildings were of fine and polishable limestone,¹²⁰ and no archaeological evidence supports his use of marble except for a small amount of decoration.¹²¹ Later, centres such as Caesarea, Ascalon and Scythopolis “received new marble structures that overwhelmed older buildings,”¹²² which was perhaps their point.¹²³ Ascalon, for example, was given a basilica 91 metres long, with 50 columns at ground level. The main order was 8.35m complete, that of the second storey 6m, and with the height to the roof of the nave of c.30m—so this was an immense building. As Fischer remarks, “Marble was the medium that placed Ascalon on a par with the other great cities of the Roman world,”¹²⁴ and it might have been one of Herod’s structures that was spoliated for the Mausoleum of Hussein in 1098.¹²⁵ Herod had visited Rome three times, which perhaps inspired him to such building, especially his Royal Portico on Temple Mount. This used the Hellenistic/Roman device

¹¹⁹ Roller, Duane W., *The building program of Herod the Great*, (Los Angeles 1998): 136f for his lavish palace; 176ff. for the temple precinct, including stoas with marble columns—the south one consisting of four marble Corinthian colonnades, with a clerestory roof.

¹²⁰ Fischer, Moshe, “‘...on Parian pillars’ (The Book of Esther 1:6): bible, midrash and real marble in the ancient Near East,” *Journal of Jewish Studies* 50.2 1999, 235–45: large-scale marble imports date from the 2ndC and 3rdC.

¹²¹ Fische, Moshe, & Stein, Alla, “Josephus on the use of marble in building projects of Herod the Great,” *Journal of Jewish Studies* 45.1 1994, 79–85.

¹²² Fischer, Moshe, “Marble, urbanism and ideology in Roman Palestine: the Caesarea example,” in Raban, Avner, & Holum, Kenneth G., eds., *Caesarea Maritima: a retrospective after two millennia*, (Leiden 1996), 251–61; see 252.

¹²³ Raban, A., “Sebastos, the royal harbour of Herod at Caesarea Maritima: 20 years of underwater research,” in Volpe, Giuliano, ed., *Archeologia subacquea. Come opera l’archeologo sott’acqua. Storie dalle acque, VIII* (Florence, 1998), 332, 408, 414 on the marble monuments.

¹²⁴ Fischer, Moshe L., “The basilica of Ascalon; marble, imperial art and architecture in Roman Palestine,” *The Roman and Byzantine Near East. Some recent archaeological research*, 1 (1995), 121–150; see 148 & figs 23–7. 25 corinthian capitals survive, the majority from Marmara, some from Aphrodisias.

¹²⁵ *Al-Gharnati, Voyages*, 70: “un grand bâtiment construit avec des colonnes de marbre dont je n’ai [jamais] vu de plus belles.” Could the author distinguish marble from polished limestone?

of an immense stoa which, according to Josephus, consisted of three rows of free-standing columns, with the fourth abutting the south wall of the Temple Mount—162 huge columns, “each of a size enabling three men to hold hands around their circumference.”¹²⁶ For Grafman and Rosen-Ayalon it was the ruins of Herod’s stoa that Arculf saw in c.680. Whether from travellers’ accounts of marble remains on Temple Mount, or from the Bible, some mediaeval illuminators were convinced that the Temple was itself a marble structure.¹²⁷

Marble, therefore, is far from a “natural” material in Palestine, where no true marble was quarried. This means that few later mosques would have more than two or three old columns, and that such survivals were also sliced up to provide slabs for opus sectile paving, wall panelling, and even window sills.¹²⁸ It therefore follows that Herodian and later Roman Caesarea was perforce a monument to the import trade. Of 58 capitals studied by Fischer, 35 are from Marmara, 8 from Afyon/Aphrodisias, 2 from Marmara/Iasos, 2 from Marmara/Mylasa, and singletons from Naxos and Paros. Of the 30 sarcophagi (or fragments thereof) studied, several are in quarry state, 13 are Pentelic, 15 from Proconnesus, and one from Dokimeion.¹²⁹ In other words, for later centuries stocks of high-quality marbles were available—although we have no way of knowing how many were taken away by sea from what was left of the Herodian harbour (in its day the only safe anchorage on the coast). Parts of Caesarea also kept going and rebuilding well into perhaps the 7th century, when a “Byzantine esplanade” was constructed, with a (now headless) porphyry statue of a seated emperor (2ndC, perhaps a cult statue of Hadrian) re-erected and facing a heroic draped seated male figure in white marble. And an inscription records that in the 6thC

¹²⁶ Josephus xv.411ff.

¹²⁷ Durand, Jannic, et al., eds., *Byzance. L’art byzantin dans les collections publiques françaises*, (Paris 1992), cat. 260 for BnF MS Grec 20 fol 4, MS Psalter fragment, Constantinople end of 9thC: the build of the Temple, showing a marble-column arcade at ground level, and the use of a pulley to hoist another marble column (conveniently with integral capital!) onto the first storey.

¹²⁸ Burgoyne, Michael H., “The gates of the Haram al-Sharif,” in Raby, Julian, & Johns, Jeremy, *Bayt Al-Maqdis: Abd al-Malik’s Jerusalem*, I, (Oxford 1992), 105–124; see 97. *Rosen-Ayalon, Myriam, *Art et archéologie islamiques en Palestine*, (Paris 2002), for an overview.

¹²⁹ Fischer, Moshe L., et al., “Isotopic and artistic analysis of Corinthian marble capitals from Caesarea: a case study,” in Vann, Robert Lindley, ed., *Caesarea papers*, (Ann Arbor 1992), 214–21; and Gersht, Rivka, & Pearl, Ze’ev, “Decoration and marble sources of sarcophagi from Caesarea,” in *ibid.*, 223–43.

Flavius Euelpidius, the “most magnificent count,” and Elias, the “most distinguished father of the city,” also built a public hall with marble and mosaic pavement near to the Hadrianeum.¹³⁰

Aided surely by materials provided from grandiose Severan buildings in Syria,¹³¹ the Moslem reworking of the Temple Mount (into the Haram Al-Sharif) was much influenced by the heroic scale of Herod’s structures and their foundations. Ben-Dov points out that one of the stones by Wilson’s Arch measured $12 \times 3 \times 4\text{m}$, “unequalled in size anywhere in the ancient world” at c.400 tons, and with plenty of ashlar at 50 tons each.¹³² Such a huge podium helped encourage ambitious structures above it. Unfortunately there is no conclusive evidence about what happened to the run-of-the-mill columns of Herod’s portico, about which we are badly informed,¹³³ although they might have been re-used in the Al-Aqsa Mosque (see below). The extent of Islamic preoccupation with grandiloquence and sheer scale partly depends on whether we accept that the Golden Gate is an Islamic and not a Byzantine construction. If the former, it uses Byzantine remains from unknown building(s), including in its interior huge 4.5m (or more) columns—big, but not big enough for the Royal Portico giants mentioned above.¹³⁴ The construction of the Umayyad Palace, the Dome of the Rock and the Al-Aqsa mosque turned the Haram into a spectacular complex¹³⁵—so were the builders influenced by what they saw at Caesarea, as well as by Herod’s constructions in Jerusalem?

¹³⁰ Holum, Kenneth G., et al., *King Herod’s dream. Caesarea on the sea*, (New York 1988), 179–80 & fig. 82.

¹³¹ Pensabene, P., “Marmi d’importazione, pietre locali e comittenza nelle decorazione architettonica di età severiana in alcuni centri delle province Syria, Palestina e Arabia,” *Archeologia Classica* 49 1997, 274–422; 413ff. for granites and marbles employed.

¹³² Ben-Dov, Meir, *In the shadow of the Temple: the discovery of ancient Jerusalem*, (New York 1985), 88, 124; 98–9 for a reconstruction of Temple Mount from SE, with stoas around.

¹³³ Mazar, Eilat, *The complete guide to the Temple Mount excavations*, (Israel 2002); 97 for illus of a 10-footer near the palace’s N wall; cf. rear of book for a coloured fold-out plan of the various phases of building and occupation of the area south of Temple Mount.

¹³⁴ de Villard, *Introduzione*, 211 for Justinianic sculpture reused in the Golden Gate, but with freshly-cut Islamic capitals, as well as the internal frieze and the decorations for the external arches.

¹³⁵ Ben-Dov, *In the shadow of the Temple*, 314–15 for reconstructions; 316: the complex had a 1000sqm caldarium with marble floor and benches; and cf. dvd_jerusalem_palace_and_mosque.doc.

Constantine and Helena

Constantine and Helena brought large quantities of marble and other into Jerusalem, probably including some blocks from Herodian constructions. Just as in Rome, large and impressive Christian structures were built at their command.¹³⁶ As well as Roman/Byzantine city furniture, Jerusalem also boasted a number of prestigious churches, especially the Holy Sepulchre, which was to find an echo and a competitor in the Dome of the Rock, not least in its use of imported marble, a point Eusebius makes in his *Church History*.¹³⁷ It was perhaps Constantine who built the colonnades shown on the Madaba mosaic map (late 6th century? originally ca. 22 × 7 metres),¹³⁸ and a mid-4th century inscription at Mons Porphyrites states that material was quarried here for the church of Melitius in Jerusalem.¹³⁹

The church known as the Nea,¹⁴⁰ constructed by order of Justinian, was a Christian rival to Herod's Portico. Procopius (VI.6–19) notes that the area needed to support it at the stipulated dimensions required a part-artificial platform, for which large blocks (some have been estimated to weigh about 8 tons) were required. In a sense, Justinian's architects continued building in the manner of the Temple Mount, to which the hill for the Nea provided a visual counterpoint. It was built with monolithic columns, and Procopius writes that there was a dearth of suitable material near the site, which was far from the sea and walled in with hills—but then, when the Emperor was becoming impatient, “God revealed a natural supply of stone perfectly suited to this purpose in the near-by hills, one which had either lain there in concealment previously, or was created at that moment.” (We shall meet such divine intervention in marble-discovery again, at Modena.) The remark “to bring columns from outside” could refer to old or to freshly quarried

¹³⁶ *Castelfranchi, Marina Falla, “Costantino e l’edilizia cristiana in Oriente,” *Costantino il grande*, 106–23.

¹³⁷ III.31: “That the building should surpass all the churches in the world in the beauty of its walls, its columns, and marbles”—though the text does not explicitly mention re-use.

¹³⁸ Tsafirir, Yoram, “Procopius and the Nea church in Jerusalem,” *L’antiquité tardive* 8 2000 (dedicated to *De Aedificiis: le texte de Procope et ses réalités*), 149–64; 151 for an explication of the Madaba mosaic; 159 for a reconstruction of parts of reconstructed portico of the southern cardo.

¹³⁹ Jackson, Robert B., *Empire’s edge: exploring Rome’s Egyptian frontier*, (New Haven 2002), 30.

¹⁴⁰ Kuchler, *Jerusalem*, 526–34; Frend, *The archaeology of early Christianity*, 4 for Constantine’s Nea, with an atrium paved with polished marble.

material, of course, but Ben-Dov interprets Procopius' account of the revelation as meaning that the monoliths came from the porticoes of the ruined Temple Mount. He believes he can demonstrate that some of the Nea's stones and columns were again re-used in the SE corner of the Moslem palace.¹⁴¹ We should probably trust Procopius' account (minus the topos), since his veracity has been put to the test and survived in various recent studies.¹⁴²

But if Ben-Dov is right that the columns came from the Temple Mount porticoes, this contradicts Procopius' assertion that they were somehow "hidden." Procopius describes the colour of the stone thus found and the great size of the columns. The church is "supported on all sides by a number of huge columns from that place, which in colour resemble flames of fire, some standing below and some above and others in the stoas which surround the whole church except on the side facing the east. Two of these columns stand before the door of the church, exceptionally large and probably second to no column in the whole world." Indeed, such red-veined stone has been quarried near Jerusalem. Thus Tsafirir interprets Procopius' supposed miracle as the discovery of new resources. In other words, this would simply be the first time masons used this rock, for he finds no evidence of its earlier use—or, at least, not once he has dated the 50 monoliths at Bethlehem (4.45m by 0.6m diameter; of the same stone, and of which there is also a bed between Jerusalem and Bethlehem), to Justinian rather than Constantine.¹⁴³ A characteristic of this stone is that it can yield large monoliths, and Tsafirir's fig. 13 is of a monolith left in the quarry because it was cracked, 12m tall, and with a diameter of c.1.75m. He does not believe this could have been for the portico/basilica on the Herodian Temple Mount as described by Josephus (Jew. Ant. 15, 413) because those were only c.8.64m high with the base (—i.e. 27 feet). He can thus preserve his dating for the opening of the "flames of fire," but it would be interesting to discover just where and when (if ever?) the fellows of the 27-footer were actually used.

¹⁴¹ Ben-Dov, *In the shadow of the Temple*, 239–41.

¹⁴² E.g. Roques, Denis, "Les "Constructions de Justinien" de Procope de Césarée: document ou monument?" *Académie des Inscriptions et Belles-Lettres, Comptes Rendus*, Nov 1998, 989–1001; 1000: "un spectacle unique, parce que panoramique."

¹⁴³ Tsafirir, "Procopius, 162–4; Thévenot recognised that the walls had once been venerated, because he saw the crampons, "but the Turks have taken all such ornaments for their mosques;" Thévenot, André, *Relation d'un Voyage au Levant*, (Paris 1664), 401.

Palace, Mosque and Monument

Given the marble remains of the Herodian, Constantinian and Justinianic city that lay around, many of them no doubt thoughtfully dismounted by the Persian sack of 614, Jerusalem offered plentiful and high-quality on-the-spot limestone and marble for the Moslems to use. Many of the columns from Herod's stoa (plus stylobates and cedar beams) made the first Al-Aqsa mosque, using the Herodian plan.¹⁴⁴ This was adjacent to the enormous complex of palaces that the Umayyads built south of the Haram.¹⁴⁵ Little is known about this ensemble, for it constitutes a design perhaps not finished by the time the dynasty expired in 750, when the focus transferred to Baghdad. Peters believes that "the complex was one of the largest, if not the largest, Muslim building project undertaken in the first century of Islam"¹⁴⁶—a completely new structure. Ben-Dov suggests this complex was built by the Caliph El-Walid I, was destroyed in an earthquake in 747/8 which the Abbasids saw as an act of God, and that thereafter the structures were simply left to decay until they were thoroughly dismantled in the 11th century.¹⁴⁷ It has also been proposed that considerable work was done on the platform itself, its paving, colonnades and gates.¹⁴⁸ When we can add Goitein's observation that the Al-Aqsa is on the same axis as the Dome, this provides good evidence of a grand design, of "an architecturally thought-out ensemble".¹⁴⁹ This was surely the view of Nasir-i Khusrau (1047), who treats the whole Haram as the sanctuary,¹⁵⁰ and admires both its marble pavement and balustrades ("of a flecked green marble that looks like a meadow with flowers in bloom") and the fine cutting and fitting of its stonework.¹⁵¹ (The analogy also

¹⁴⁴ Grafman, Rafi, & Rosen-Ayalon, Myriam, "The two great Syrian Umayyad mosques: Jerusalem & Damascus," *Muqarnas* 16 1999 1–15; see 2–3, and fig. 2 for the stoa imposed on the present mosque.

¹⁴⁵ Küchler, *Jerusalem*, 287ff.

¹⁴⁶ Peters, Francis E., *Jerusalem and Mecca: the typology of the holy city in the Near East*, (New York 1986), 92.

¹⁴⁷ Ben-Dov, M., *The Omayyad structures near the Temple Mount*, (Jerusalem 1971), 37–44.

¹⁴⁸ Grabar, O., in *EI Jerusalem*.

¹⁴⁹ Goitein, S.D., in *EI Jerusalem*.

¹⁵⁰ Le Strange, Guy, "Description of the noble sanctuary at Jerusalem at 1470 AD, by Kamal (or Shams) ad Din as Suyuti," *Jnl Royal Asiatic Society* NS 19 1887, 247–305; see 254–6.

¹⁵¹ For marble on the Haram, cf. Kaplony, Andreas, *The Haram of Jerusalem 324–1099. Temple, Friday mosque, area of spiritual power*, (Stuttgart 2002), 85, 101, 533, 681; 686f. &

crosses material boundaries, so that silk can be described as marble-like).¹⁵² He describes to the right of the Bab Al-Selsela and running almost to the maqsura two colonnades with 29 marble columns, and capitals and bases of coloured marble; while to the left (to the north) “is a long colonnade with sixty-four arches atop marble columns.”¹⁵³ Like Nasir-i Khusrau, Al-Muqaddasi writes of the whole platform as a mosque, referring to the central areas as a courtyard.¹⁵⁴ Closer in date to some of the building transformations is Ibn Hawqal, who also treats the Haram as a unity, praising its marble paving, and noting that it had “an enclosure wall made of marble panels, half as high as a man.”¹⁵⁵ These sound very much like transennae, and there is little reason why some marble from Christian churches could not have been used, and every reason why such re-use would have been seen as triumphalist. Given the stretches to be covered, and if the whole Haram had transennae, this is another argument in favour of marble (needing to be recut?) brought in from elsewhere, such as Caesarea.

This platform was to be the site for the monument (not primarily a mosque) known as the Dome of the Rock, which survives in its original form except for some changes of external wall decoration, and the Al-Aqsa Mosque, rebuilt on several occasions, but also rich in marble. The earliest (late 7th century) mosque on the Haram, “built on top of earlier ruins,” was also marbled, because a Christian specialist in marble work was employed, and it might have had a red marble floor from an earlier Christian monument there.¹⁵⁶ For one scholar, Abd Al-Malik’s “redevelopment of the city on such an ambitious scale clearly issued a challenge to the lord of Mecca, his opponent Ibn Al-Zubayr. What makes this interpretation so attractive is that the rebels had already begun to use material culture as a weapon for ideological conflict”¹⁵⁷—namely coinage. But the marble resources of Jerusalem were finite, so unless they were able to import marble from further afield, builders were dealing with a diminishing resource—which was surely intended to make its lavish use on the Haram Al-Sharif the more impressive.

fig. 86 for the four green marble columns “with dots of all colours,” and 6.65m tall, supporting an arcade.

¹⁵² L-B *England*, 2745, 2915, dated 1245 and 1295.

¹⁵³ Nasir-i Khusrau, *Travels*, 24, 34.

¹⁵⁴ Al-Muqaddasi, *Best divisions*, 142.

¹⁵⁵ Ibn Hawqal, *Configuration*, I.168.

¹⁵⁶ Kaplony, *The Haram of Jerusalem*, 210, 24.

¹⁵⁷ Johns, “Archaeology and the history of early Islam,” 426.

The Dome of the Rock

The first important surviving Muslim monument is the Dome of the Rock (687–91), a worthy successor to what early Islamic legends of Solomon's Temple describe as "sheathed inside and out with white, yellow, and green marble."¹⁵⁸ Although it has suffered the travails of restoration this structure is, in comparison with almost any other structure Christian or Islamic, essentially as built.¹⁵⁹ This is not the place for a disquisition on the typology of the Dome,¹⁶⁰ except to point out that it parallels mausolea near Rome such as S. Costanza and Torpignattara (which also had opus sectile).¹⁶¹ Again, it seems likely that the Muslims may well have been so impressed by Herodian Jerusalem because they confused its structures with those traditionally built by Solomon. The typology was so well known that a 12th-century Arab encyclopaedist assures us that Old S. Peter's at Rome had not only gold and silver columns, but arches and domes with polychrome mosaic as well.¹⁶² Prestigious churches closer to hand also offer a context for imitation, such as the martyrion of Qalat-Siman (which was of continuing popularity)¹⁶³ and the cathedral at Bosra. One tradition relates that the actual dome came from a Christian church at Baalbek.¹⁶⁴ Certainly, the footings on the E face incorporate sculptured marble slabs.¹⁶⁵ Not

¹⁵⁸ Khoury, Nuha N.N., "The Dome of the Rock, the Ka'ba, and Ghumdan: Arab myths and Umayyad monuments," *Muqarnas* X 1993, 57–65; see 59.

¹⁵⁹ Küchler, *Jerusalem*, 236–54 for summary; Alle, H.R., "Observations on the original appearance of the Dome of the Rock," in Raby, Julian, & Johns, Jeremy, eds., *Bayt al-Maqdis: Jerusalem and early Islam*, (Oxford 1999), 197–213, with photo of the model showing matched marble panelling to head height on the exterior.

¹⁶⁰ De Villard, *Introduzione*, 187ff. for models, including Iran and Sassanid influences.

¹⁶¹ Guidobaldi, Federico, "Caratteri e contenuti della nuova architettura dell'età costantiniana," *Rivista di Archeologia Cristiana* LXXX 2004, 233–75; see figs 12 & 14 for reconstructions of the revêtement of both buildings, and 268 for a list of his "signature" typologies: opus sectile, domes, complicated plans, columned arcades, bigger windows.

¹⁶² Bramon, Dolors, *El mundo en el siglo XII: estudio de la versión castellana y del original árabe de una geografía universal*, "El tratado de al-Zuhri," (Sabadell 1991), 128–9.

¹⁶³ Maraval, Pierre, *Lieux saints et pèlerinages d'Orient: histoire et géographie des origines à la conquête arabe*, (Paris 1985), 342ff.

¹⁶⁴ Kaplony, *The Haram of Jerusalem*, 395, 528ff.

¹⁶⁵ Wilson, *Survey*, 22: "evidently taken from some other building, as they have been cut down to fit the height of the base or plinth of the Dome of the Rock, one of these slabs was found forming part of the decoration of the Mihrab of John and Zechariah, in Al-Aksa, and another, the most interesting, with a Greek inscription partly cut off; built into the lower part of the casing within the Dome of the Rock and close to the Bab Al-Gharby."

surprisingly, given Herod's prior exertions, Caesarea Maritima had just such a 6th-century church built upon a Roman temple platform. The city was captured by the Muslims in 641/2, thus providing another and yet nearer possible model.¹⁶⁶ There they built a mosque, wherein Nasir-i Khusrau remarked on a marble vase "as thin as Chinese porcelain, although it holds a hundred maunds [350 pounds] of water."¹⁶⁷ Perhaps, like Al-Mas'udi's story of the Great Mosque at Damascus (see below), the Dome was built "pour épater les Chrétiens," and to give Moslems a Wonder of the World.¹⁶⁸ For certain periods, the Christians had to be content to be astonished from a distance, since the structure was out-of-bounds to them.¹⁶⁹ Given the numbers completed during Constantine's reign, topping the structure with a dome is something of a Constantinian signature. So it is small wonder that the lavishness of the Dome of the Rock (for example the columns inside are of coloured marble) can trace its inspiration back to his many productions in the East,¹⁷⁰ the more so given the probable use of Byzantine craftsmen in its decoration and perhaps its design.

Nor is its marbled exterior a first, since the façade of Haghia Sophia was supposedly completely covered with marble veneer, changing the usual dichotomy of earth-outside versus heaven-inside. Such exuberant exteriors were eventually to be found further East, but executed in ceramic. With the exception of doors to the exterior of Córdoba's Mezquita, it was not to be the fashion in Islam westwards from Damascus to indulge such richness except inside their public and religious buildings. So it is likely that the Dome drew inspiration from pagan mausolea, some of which were indeed sheathed in marble externally, like various Roman civic monuments.

¹⁶⁶ Curcic, Slobodan, "From the Temple of the Sun to the Temple of the Lord: monotheistic contribution to architectural iconography in Late Antiquity," in Striker, Cecil L., ed., *Architectural Studies in Memory of Richard Krautheimer*, (Mainz 1996), 55–9 & plates 24–8; Holum, Kenneth G., "Caesarea," in Meyers, Eric M. ed., *The Oxford Encyclopaedia of Archaeology in the Near East*, (New York & Oxford 1997), I, 399–404.

¹⁶⁷ Nasir-i Khusrau, *Travels*, 19.

¹⁶⁸ —And to divert their attention from the Holy Sepulchre: cf. Kaplony, *The Haram of Jerusalem*, 502.

¹⁶⁹ E.g. during the 1670s, nor were they allowed to set foot on the Haram: Le Brun, Corneille, *Voyage au Levant*, (Delft 1700), 298.

¹⁷⁰ Castelfranchi, "Costantino e l'edilizia cristiana in oriente", *passim*.

With old capitals,¹⁷¹ columns, mosaic tesserae and marble floors,¹⁷² the Dome was intended to outshine the Church of the Holy Sepulchre below, and certainly to attract the attention of Christians.¹⁷³ The Fatimid Gate of David also displayed polychrome mosaics (including an inscription)¹⁷⁴ to echo those of the Dome. The Dome's exterior shows it to be an early exhibitor of monumental inscriptions¹⁷⁵ (later echoed by the prayer hall at Damascus, its inscription now lost).¹⁷⁶ Inside, on the inner face of the octagonal arcade, a long inscription explicitly states the superiority of the new religion and the falsity of the old. "There is no God but God alone, without partner... The Messiah, Jesus son of Mary, was only God's messenger... It is not for God to take a son. Glory be to Him." So the erection in the 12th century of a dome on the Holy Sepulchre (a rebuild and heightening of an earlier one) was precisely a response to the Islamic monuments on the Temple Mount. Again, the multi-column Byzantine Imbomon on the Mount of Olives¹⁷⁷ is a likely part-inspiration. The Dome used some of the (already old) capitals from the Al-Aqsa,¹⁷⁸ and was perhaps a response to Christian buildings set within open courts, which were very popular in the Holy Land.¹⁷⁹ Competition between Christians and Muslims worked both ways not just when the Dome was constructed, but during the Crusades. So not only were capitals from the Al-Aqsa used to repair the Holy Sepulchre¹⁸⁰ but, if Strzygowski is correct, marble from the tombs of

¹⁷¹ Wilkinson, John, *Column capitals in al Haram al Sharif (from 138 AD to 1118 AD)*, (Jerusalem 1987).

¹⁷² Wilson, *Survey* 36: inside, "The pavement of the mosque between the external wall and screen is a confused mass of old material, amongst which there are many portions of sculptured slabs like those seen outside, one of which, a little to the north of the western gate is nearly perfect."

¹⁷³ William of Tyre, *Hist. Rerum Transmarin.*, PL CCI, I.2 col 215:...alique vetusti operis exstantia vestigia demonstrantes, ubi sumptibus qui sufficere possent ad impensam designatis et convocatis artificibus, subjecta pro votis materia tam ex marmorum diversitate quam ex lignorum differentia multiplici, templum aedificari praecepit...Exstant porro in eodem templi aedificio, intus et extra, ex opere Musaico, Arabici idiomatis litterarum vetustissima monumenta, quae illius temporis esse creduntur."

¹⁷⁴ Kaplony, *The Haram of Jerusalem*, 610ff.

¹⁷⁵ Context in Blair, Sheila, *Islamic inscriptions*, (Edinburgh 1998), 19ff. for monumental inscriptions; 29ff. for foundation inscriptions.

¹⁷⁶ Golvin, Lucien, *Essai sur l'architecture religieuse musulmane*, 2 vols, (Paris 1970), I, 135.

¹⁷⁷ Küchler, *Jerusalem*, 876–97.

¹⁷⁸ Wilkinson, John, *Column capitals*, 27ff.

¹⁷⁹ Curcic, Slobodan, "From the Temple of the Sun to the Temple of the Lord," 57.

¹⁸⁰ Wilkinson, *Column capitals*, 27ff.

the Latin kings was used prominently on the Haram to adorn mihrabs, perhaps as another expression of triumphalism.¹⁸¹ Certainly, the Christians covered the rock in the Dome with a cupola on marble columns and marble bas-reliefs: Saladin had all this torn down, although he left their wrought-iron balustrade.¹⁸²

The Al-Aqsa Mosque

Neither Abd Malik nor Walid I would have been satisfied with the mosque we see Al-Malik, writes Stern, for their ambitions were grander.¹⁸³ Al-Suyuti, for example, writing in the 15th century, affirms that in Abd Al-Malik's day the Al-Aqsa had 6000 beams of wood for the ceiling, 600 columns of marble, and 7 mihrabs; in 746 an earthquake brought the structure down. Eventually Al-Mahdi ordered its rebuilding, saying that the earlier version was too narrow and of too great a length; and that for this reason it had not been much used by the people. The rebuild should therefore curtail the length and increase the depth.¹⁸⁴ And this was the case if the result was as described by Nasir-i Khusrau, with 280 marble columns and, "along the great outer wall, is an arcade with forty-two arches, all the columns of which are of coloured marble."¹⁸⁵ Walid I also renovated the Mosque of Amr at Fustat, as well as the Great Mosque at San'a, and the Mosque of the Prophet at Medina, so presumably he (or more likely his emirs) knew plenty of sources for locating material. For Al-Muqaddasi, the Al-Aqsa was even more beautiful than Damascus—and one manuscript of his *Best Divisions* is annotated "because it had to stand comparison with the great church belonging to the Christians, which was in Jerusalem, so they built the mosque more magnificent than that." He also writes that it had a portico supported on marble columns built *above* the fifteen entrance doors¹⁸⁶—shades of a scenae frons design? In his account, each of the provincial governors was instructed to build a colonnade

¹⁸¹ Strzygowski, Josef, "Ruins of Tombs of the Latin Kings on the Haram in Jerusalem," *Speculum* 11.4. 1936, 499–508.

¹⁸² Al-Isfahani, *Conquête de la Syrie*, 55.

¹⁸³ Stern, Henri, "Recherches sur la Mosquée Al-Aqsa et sur ses mosaïques," *Arts Orientalis* V 1963, 27–47; see 33.

¹⁸⁴ Le Strange, "Description of the noble sanctuary," 285–7; Le Strange, *Palestine under the Moslems. A description of the Holy Land from AD 650 to 1500*, (Beirut 1965), 92. The account perhaps falls if Al-Mansur rebuilt the structure in 754–5.

¹⁸⁵ Nasir-i Khusrau, *Travels*, 26–7.

¹⁸⁶ Al-Muqaddasi, *Best divisions*, 142.

(the *corvée* system was common in Muslim lands), and though just where these colonnades were built is unclear, it seems likely that the governors donated materials as well as workmen. Hence it is probable that the mosque had more columns by the early 8th century than appear in subsequent reworkings.¹⁸⁷ In this complicated history, can we see anything of the progeny of the columns from Herod's portico? Yes, if the earlier Al-Aqsa did indeed start its marbled life built by Abd Al-Malik (between 685 and 705) over Herod's portico, or at least on the same footings. Support for this supposition comes from the Muthir Al-Ghiram (written 1351), which states that an earthquake (in 747) brought down the earlier Al-Aqsa, and Al-Mahdi found it in ruins. Of course, much earlier evidence would be welcome. By the 11th century, the mosque also had a polychrome marble floor,¹⁸⁸ while Al-Qazwini (1203–83) emphasises the coloured marble and mosaic in the interior.¹⁸⁹ Hence what remains today is a stub, which should be envisioned as the adjacent mosque for the ruler's palace, as at both Damascus and Córdoba. In all three centres, unfortunately, little information survives with which to build even a notional picture.

Mecca and Medina

Because of the many alterations and refurbishments, it is difficult to get a clear picture of the exact use of marble (not to mention the chronology of its introduction) at these two prestige sites.¹⁹⁰ At times they were in competition with the splendours of Jerusalem. Al-Muqaddasi (born c.946) relays that Al-Mahdi had three porticoes of white marble brought from Alexandria to the port of Jeddah, and that "The mosque [in its present form] was founded by him. The porticoes have their walls decorated on the outside in mosaic, artisans from Syria and Egypt being specially imported for the work. The names of these still appear on their

¹⁸⁷ Küchler, *Jerusalem*, 226 for schematic diagram.

¹⁸⁸ Kaplony, *The Haram of Jerusalem*, 775.

¹⁸⁹ Rubiera Mata, *Arquitectura en la literatura árabe*, 108–9: "en medio del pilon hay un gran cupula octagonal sobre columnas de mármol, techadas con plomo, y adornada por dentro y por fuera de mosaico y mármol de colores."

¹⁹⁰ Johns, "Archaeology and the history of early Islam," 433: "The Mosque of the Haram at Mecca and the Mosque of the Prophet at Medina have been razed to the ground and completely rebuilt in such a manner as to deny any possibility of archaeological excavation, even were it to be permitted."

work.”¹⁹¹ This last remark is the kind of attestation or verification often used by Islamic historians, which could be a topos.¹⁹² But Al-Muqaddasi went on pilgrimage three times (966, 977 and 987), so perhaps he is at least reporting persistent fables. Materials from the temple at Akhmin in Upper Egypt were also said to have been taken there, date unknown. However, such sophistication postdates Jerusalem’s Dome of the Rock. Mecca started as a simple shrine, for Al-Baladhuri (died 892) notes that in early days, the enceinte of the Haram at Mecca must have been grass, because there is mention of grazing camels therein.¹⁹³ Beautification was swift.¹⁹⁴ The capitals were gilt by 815, but without any mention of whether they were stone or marble underneath.¹⁹⁵ Nasir-i Khusrau counted 184 marble columns, brought by sea from Syria, including one shaft of red marble bought for its weight in dinars; slab marble and veneer also decorated the interior of the Ka’ba, the columns of which were teak.¹⁹⁶ Ibn Jubayr, who visited Mecca in 1182, gives an eye-witness account to a later stage of the complex. He counted 471 columns, praised the coloured marble panels inside the Ka’ba, and was intrigued by quarter-cut white panels (reputedly from the Dome of the Rock) “on which Great and Glorious God has fashioned, at its first creation, remarkable designs.”¹⁹⁷ Burckhardt visited the mosque, and from his own observation (impossible, of course, to link with the state of affairs over a millennium before), he noted that the capitals and bases were all different, some “Saracen,” others used upside-down as bases. “I observed about half a dozen marble bases of good Grecian workmanship. A few of the marble columns bear Arabic or Cufic inscriptions, in which I read the dates 1360 and 1458. This temple has been so often ruined and repaired, that no traces of remote antiquity are to be found about it”.¹⁹⁸ Leon Roches, interpreter-in-chief to the French Army in the 1830s, writes of a 1663 rebuild, and says he saw

¹⁹¹ Al-Muqaddasi, *Best divisions*, 67, 73.

¹⁹² Grabar, Oleg, *The shape of the holy: early Islamic Jerusalem*, (Princeton, NJ. 1996), 203 note 68 for discussion on whether craftsmen really were imported for Umayyad constructions.

¹⁹³ Al-Baladhuri, 73.

¹⁹⁴ dvd_marble_veneer_slabs.doc for sizes and quantities.

¹⁹⁵ Al-Tabari XXXII.30.

¹⁹⁶ Nasir-i Khusrau, *Travels*, 72, 77.

¹⁹⁷ Kaplony, *The Haram of Jerusalem*, 86–7, for parallel miracles of nature on the Haram.

¹⁹⁸ Burckhardt, John L., *Travels in Arabia*, (London 1829), 165, 134ff.

dissimilar columns in porphyry and granite, but mostly in stone, with an average height of 6m and girth of 60cm–600 in all, he was told.¹⁹⁹ Twentieth-century reworking has completed what earlier centuries began, and no extensive excavations to determine the history of this important complex have been undertaken. As for the source of the marble at Mecca, again we must rely on mediaeval reports. In addition to those already cited, Enlart says materials came from the Dome of the Rock,²⁰⁰ but Theophanes records that the Byzantine emperor sent columns because otherwise Abd Al-Malik threatened to strip what he needed from Christian churches.²⁰¹

At Medina, the prophet's Mosque began with palm-trunks, and its first refurbishment (638) might have replaced these with columns of mud-brick. But Uthman's extension of 649 used stone column-drums, superimposed and joined by iron clamps bedded in lead, similar to Al-Kufa,²⁰² because marble monoliths were not available.²⁰³ In the next century, Al-Walid's mosque (707–10) supposedly received materials from the Byzantine Emperor, and also green, red and white marble from Syria.²⁰⁴ According to Al-Tabari, the earlier structure was pulled down in 707, and "Al-Walid had sent to inform the lord of the Romans that he had ordered the demolition of the mosque of the prophet, and that he should aid him in this work. The latter sent 100,000 mithqals of gold, and sent also 100 workmen, and sent him 40 loads of mosaic cubes; he gave orders to search for mosaic cubes in ruined cities and sent them to Al-Walid." Al-Maqdisi noted (repeating Al-Muqaddasi's comment and hence suggesting a common source) that "the walls of the porticoes are covered on the outside with mosaics. Craftsmen from Syria and Egypt were brought there for the purpose and their names are still to be seen there."²⁰⁵ By the 15th century, the mosque had a forest

¹⁹⁹ Roches, Leon, *Dix ans à travers l'Islam, 1834–1844*, (2nd ed., Paris 1904), 296; 297: he notes inscriptions on marble plaques above the doors saying who built which parts, and the date: were these transcribed?

²⁰⁰ Enlart, C., *Les monuments des Croisés dans le Royaume de Jérusalem: architecture religieuse et civile*, 2 vols, (Paris 1925 & 1928): I, 37; but without further explication.

²⁰¹ Flood, *Great Mosque of Damascus*, 201.

²⁰² Al-Muqaddasi, *Best divisions*, 97.

²⁰³ Sauvaget, Jean, *La Mosquée omeyyade de Médine: étude sur les origines architecturales de la mosquée et de la basilique*, (Paris 1947), 72, 78–80.

²⁰⁴ Flood, *Great Mosque of Damascus*, 197–8.

²⁰⁵ Bishch, Ghazi Izzeddin, *The mosque of the prophet at Madinah throughout the first century A.H. with special emphasis on the Umayyad mosque*, PhD (Ann Arbor, Michigan, 1979), 158, 162; 202f., 206.

of columns, with 111 in the porticoes in the manner of Damascus and Jerusalem. Perhaps the marble imported from Byzantium was veneer, and used for the Prophet's tomb as well as the mosque, for Ibn Jubayr praised the veneers there which were similar to those he had seen at Mecca.²⁰⁶ Sauvaget conjures up a reconstruction of opus sectile on the prayerhall walls which makes them look very Roman-derived, almost in the manner of Ravenna or Parenzo. There is no evidence that the 290 stone columns of the mosque were replaced in the early centuries. Ibn Jubayr says they were plastered—but so highly polished that they had “the appearance of white marble”²⁰⁷—so perhaps the covering was marble-dust stucco. This could accord with Jalalu'ddin Al-Suyuti who, writing in the 15th century, stated that in 647 “Othman enlarged the mosque of Medina and built it of carved stone, and fashioned its pillars of stone, and its roof of teakwood.”²⁰⁸ But again, there is no mention of any marble columns and, in view of the topos-like details, and because of contemporary hostilities with Byzantium; Sauvaget thinks such imports unlikely.²⁰⁹

Damascus

The situation at Damascus,²¹⁰ with its complement of important and marble-rich buildings,²¹¹ and putatively hymned in the Koran,²¹² is much easier to understand than that at either Mecca or Medina.²¹³ For in spite of fires and other disasters (especially the great fire of 1893), the columns, arches, and wall decoration in marble or mosaic in the Umayyad Mosque seem (but see below) little changed since their first transformation in 706ff. from a site occupied by a Christian church.

²⁰⁶ Ibn Jubayr, *Travels*, 86ff., 199.

²⁰⁷ Donaldson, Dwight M., “Ibn Jubayr's visit to al-Medina,” *Journal of the American Oriental Society* 50 1930, 26–42; see 36. Presumably he means that marble stucco was used.

²⁰⁸ Jarrett, *Jalalu'ddin al-Suyuti*, 160.

²⁰⁹ Sauvaget, *La Mosquée omeyyade de Médine*, 112.

²¹⁰ Bianquis, Thierry, “Damas,” in Garçin, *Grandes villes*, 37–55.

²¹¹ Sauvaget, J., *Les monuments historiques de Damas*, (Beirut 1932); 15–17 for list of various works on the mosque (including veneer replacement) from origins to Tamberlaine in 1401; 18ff. for description of the building.

²¹² Al-Harawi, *Guide*, 24; “on dit que c'est Damas 'l'Iram aux colonnes telle qu'il ne fut pas crée de pareille au monde” (Koran 89, 6/7–7/8);—and then (38) compares the Umayyad Mosque to the Al-Aqsa.

²¹³ dvd_building_restoring_umayyad_mosque.doc.

Both church and mosque used materials from the great Roman temple on the site, elements of which survive in the outer walls and environs. Founded within the precinct of the temple, which had a standard Roman form of porticoes framing a central structure, the Umayyad Mosque at Damascus apparently used nothing from earlier periods in place except for the outer walls,²¹⁴ and the Roman portico, which led Al-Qazwini (1203–83) to believe it was part of the mosque.²¹⁵ The church was probably relatively small, and although there would have been no distaste for reusing its materials—cf. Hama²¹⁶—it seems certain that the mosque was, although with certain antique elements,²¹⁷ a completely new design within the existing enceinte. For what was planned, the short church columns would have been no use; indeed, the mosque's 705 foundation inscription states that the church was destroyed.²¹⁸ The new structure employed much taller columns, which would have echoed the columns of the W. propylaea, which are 11.9m including base and capital.

The fitting-out of the mosque²¹⁹ was to the presumed displeasure of the Christians whose church had occupied part of the site and whose expulsion (after years of worshipping amicably together) had the flavour of a pre-emptive strike.²²⁰ It was carried out employing old columns, sheet veneers, and mosaic tesserae, and was very expensive. Ibn Batuta, writing nearly seven centuries later, states that its builder, Al-Walid I (705–15, whom we meet once more) “applied to the Roman Emperor

²¹⁴ *Burns, Ross, *Damascus: a history*, (New York 2005), 113ff.

²¹⁵ Rubiera Mata, *Arquitectura en la literatura arabe*, 109–10: “Les columnas mas extraordinarias son las de la entrada que son unicas por su largura y anchura. Dicen que son obra del pueblo de ‘Ad, pues en nuestro tiempo no hay piezas asi que se puedan transportar ni levantar.”

²¹⁶ Creswell, K.A.C., “The Great Mosque of Hama,” in Ettinghausen, Richard, *Aus der Welt der islamischen Kunst: Festschrift für Ernst Kühnel zum 75. Geburtstag am 26.10.1957*, (Berlin 1959), 48–53; see 50 fig 2 for the E façade of the sanctuary, perhaps the wall of the former church, itself on the site of a 3rdC AD temple; an inscription possibly dates the church to AD595; converted to a mosque perhaps as early as 636/7.

²¹⁷ Fortsch, Reinhard, “Die Architekturdarstellung der Umayyadenmoschee von Damaskus und die Rolle ihrer antiken Vorbilder,” *Damaszener Mitteilungen* 7 1993, 177–212.

²¹⁸ Sauvaget, *Monuments historiques de Damas*, 15.

²¹⁹ Flood, *Great Mosque of Damascus*, 200.

²²⁰ Al-Baladhuri, 192: supposedly when Umar became caliph, he wrote to Damascus “to his ‘amir ordering him to return to the Christians that part which he had added to the mosque from their church. The people of Damascus disliked the idea saying, “Shall we destroy our mosque after we have called to prayer and held service in it?”

at Constantinople, ordering him to send craftsmen to him, and the Emperor sent him twelve thousand of them.”²²¹ He also assigned to the construction seven years of the tax revenues of Syria, as his father Abd Al-Malik used those of Egypt for seven years to pay for the Dome of the Rock. Is this a topos? That is, he paid large sums “for the purchase of spectacular marbles, paving the courtyard with marble and the walls with dadoes of variegated marbles.”²²² A large part of the expenditure could well have gone on transport. We can assume his architects knew what was needed, for he simultaneously refused the entreaties of the Byzantine emperor to purchase similar antique architectural elements from buildings under Muslim control.²²³ We may also surmise that the marble capitals and perhaps the mihrab were gilded, and the walls with encrusted with stones imitating precious stones as Al-Edrisi affirms.²²⁴ The mosque was to be roofed in lead, and prospectors went out to look for re-usable material, particularly in sarcophagi: they found a stone vessel with a lead coffin inside—but when the corpse started bleeding from the mouth they ran away in terror.²²⁵ This is surely a fanciful tale, yet it is likely that lead was indeed obtained from Christian cemeteries, even if Umm-Al-Rasas is not to be translated as “mother of lead.”²²⁶ The builders probably also needed lead for fixing veneer—a technique already used at the Dome of the Rock²²⁷—as well as for fixing bases to columns and capitals to columns.

Abd Al-Malik (685–705) spent “40 chests of gold for the mosaics, excluding the marble and the ancient materials.” There are various accounts of where these came from: Sa’id says that Abd Al-Malik had the Byzantine Emperor provide materials as a condition of their peace treaty.²²⁸ But so sumptuous were the fittings that Caliph Umar (717–20),

²²¹ *Travels in Asia and Africa 1325–1354*: <http://www.fordham.edu/halsall/source/1354-ibnbattuta.html>.

²²² Ibn Hawqal, *Configuration*, I.172.

²²³ Flood, *Great Mosque of Damascus*, 202.

²²⁴ Al-Edrisi, *La géographie*, I, 553.

²²⁵ Sauvaire, Henri, “Description de Damas,” *Journal Asiatique*, VII/2 1896 185–285; see 196.

²²⁶ Piccirillo, Michele, & Alliata, Eugenio, *Umm Al-Rasas I: gli scavi del complesso di Santo Stefano*, (Jerusalem 1994), 26 for discussion.

²²⁷ Wilson, Survey, 22: “The slabs are fastened to the stone by metal cramps, run in with lead, a good even bed of mortar having been prepared to receive them.”

²²⁸ Mas’udi, *Prairies*, II, 496; and he might have threatened to strip Christian churches, as he did to exact materials for Mecca: cf. Flood, *Great Mosque of Damascus*, 201.

a pious, frugal and public-spirited man, supposedly pondered selling the mosaics if he were sure he could recoup the outlay for the public treasury.²²⁹ From which we may make two deductions, namely that there must have been an active market in mosaic tesserae (to beautify probably Muslim buildings of which we know nothing), and that even in its initial form old materials were added to beautify the mosque. Whatever their source and the home of their craftsmen, the classical nature of the mosaics' vocabulary meant that "there is little that could not have been found in the architecture of the eastern Mediterranean in the preceding two centuries, if not four centuries earlier in Constantinian Rome."²³⁰ The mosaics were probably intended to recall Byzantium, and certainly did so for Al-Harawi (d.1215), who said he had seen work similar to that in the central cupola in the lands of Rum, although no mosque equaled this one.²³¹ Hence the mosque and its designs in structure, marble and decoration are new and old at the same time—an instant classic, as it were, bridging several traditions. Whether Byzantine craftsmen really did work on the building is not known, but early 8th-century papyri from Aphrodito in Upper Egypt detail the responsibility of the governor there to send men to Damascus (as well as to Jerusalem) and to pay for them.²³² As Hillenbrand points out,²³³ this corvée system was no doubt a channel for the introduction of foreign forms and motifs to Syria. Perhaps also for the import of materials: Syria was poor in marble (except for veneers), and temples in Lebanon had used little except for decoration, in spite of the proximity of the Phoenician coast, where it was imported.²³⁴

Why was the Umayyad Mosque, which was to be so influential,²³⁵ so splendidly built? Some inspiration (and materials?) surely came from the spectacular porticos and colonnades of Roman Syria, such as

²²⁹ Mas'udi, *Prairies*, II, 262ff.; he also says the roof was plated in lead, instead of tile; on the matter of selling the mosaics, above, 148f.

²³⁰ Flood, *Great Mosque of Damascus*, 200.

²³¹ Al-Harawi, *Guide*, 38–9.

²³² Elad, Amikam, *Medieval Jerusalem and Islamic worship: holy places, ceremonies, pilgrimage*, (Leiden 1995), 37–9; Grabar, *The shape of the holy*, 211 note 34 points out that the Aphrodito papyri do not state that the "palace" was in Jerusalem—and, in any case, the word used should be translated as aula or hall.

²³³ *Islamic art and architecture*, (London 1999), 134.

²³⁴ Fischer, *Marble studies*, 263–4.

²³⁵ Flood, Finbarr B., "Umayyad survivals and Mamluk revivals: Qalawunid architecture and the Great Mosque of Damascus," *Muqarnas* 14 1997, 57–9.

Jerash²³⁶ or Antioch.²³⁷ Antioch deployed some 1,400 columns in both its second-century and sixth-century phases, making it a juicy city to sack,²³⁸ and Abd Al-Malik (705–15) had carried off some of the columns of the round church of S. Mary for Damascus.²³⁹ Further afield, large colonnades at Corinth and Constantinople were still standing in Al-Walid's time.²⁴⁰ These, as Ward-Perkins points out, were "a sophisticated means to combine monumentality with both commerce and amenity."²⁴¹ Certainly, there were precedents for lavishly marbled church complexes, such as the four built by Bishop Paul at Jerash (529/33).²⁴² But Flood concludes that, splendid as some of the Syrian church complexes undoubtedly were, Damascus shone more brightly, with its marble colonnaded porticos, gilded marble and glass mosaic. Thus the mosque not only maintained Damascus' regional economic and cultural dominance which began well before the Muslim conquest²⁴³—but by the scale of the architecture seen when it was the Umayyad capital, increased that dominance. Small wonder, then, that the Umayyad Mosque had influence and impact, especially on Córdoba,²⁴⁴ but also on the marble screens on the façade of S. Marco, Venice.²⁴⁵

No doubt another reason for the splendour of the mosque was the rest of the Umayyad city. Much of the 8th-century cityscape outside the mosque walls has gone, but we should remember that in Damascus as

²³⁶ Kennedy, David, *Gerasa and the Decapolis: a 'virtual island' in northwest Jordan*, (London 2007), 41 for a list of the public buildings.

²³⁷ Kennedy, David, "The identity of Roman Gerasa: an archaeological approach," *Identities in the Eastern Mediterranean in Antiquity*, (Canberra 1997), viz. *Mediterranean Archaeology* 11 1998, 39–69; 59–60 for the colonnaded streets.

²³⁸ Procopius, *History of the Wars*, II.9 on Chosroes' sack in 538: "the sanctuary which they call a church...he took down from there many wonderful marbles and ordered them to be deposited outside the fortifications, in order that they might convey these too to the land of Persia."

²³⁹ Kennedy, Hugh, "Antioch: from Byzantium to Islam and back again," in Rich, John, ed., *The city in late antiquity*, (London & New York 1992), 181–98; see 187.

²⁴⁰ Mango, Maria Mundell, "The commercial map of Constantinople," *DOP* 54 2000, 189–207; see 195, 203; and Lassus, J., *Les portiques d'Antioche, Antioch-on-the-Orontes* 5, (Princeton 1972), 125–51.

²⁴¹ Ward-Perkins, Bryan, "Urban survival and urban transformation in the eastern Mediterranean," in Brogiolo, G.P., ed., *Early Medieval Towns in West Mediterranean*, (Mantua, 1996), 143–53; see 151.

²⁴² Frend, *The archaeology of early Christianity*, 200; there are 11 churches within the city walls, and one without.

²⁴³ Flood, *Great Mosque of Damascus*, 226.

²⁴⁴ Bloom, Jonathan, "On the transmission of designs in early Islamic architecture," *Muqarnas* 10, 1993, 21–8.

²⁴⁵ Mack, Rosamond E., *Bazaar to piazza*, (Berkeley 2001), 9.

in Jerusalem, the Umayyad Mosque was but one part of an extensive complex of adjacent palaces, indeed a whole “Quarter of Pavilions and Domes.” Here was to be found a Byzantine palace which was kept in use. “The richness of the building’s decoration, which included simple polychrome floor mosaics, coloured marble, opus sectile pavements, and stained glass, gives some idea of how the Khadra’ might have been embellished.”²⁴⁶ Perhaps it was to these “marbled halls” that the poet Abu Dahbal Al-Jumahi referred to in 682, well before the mosque was built.²⁴⁷

Córdoba

After the conquest in 711, and amid the ever-developing riches of Islamic buildings,²⁴⁸ the eventual expansion of the city of Córdoba made it a centre of culture and sophistication²⁴⁹ which was widely influential.²⁵⁰ This was at a time when most contemporary settlements in Europe were by comparison small, architecturally unadventurous, and often impoverished. There are certainly decorative details in the Islamic architecture of Al-Andaluz which derive from Visigothic architecture in Iberia.²⁵¹ Yet, for all its distance to the west, the Mezquita²⁵² has the same architectural and decorative horizons as its main model in Damascus, perhaps imitating that city also in its palace architec-

²⁴⁶ Flood, *Great Mosque of Damascus*, 148–9.

²⁴⁷ Von Grunebaum, Gustave E., “The response to nature in Arabic poetry,” *Journal of Near Eastern Studies* 4.3 1945, 137–51; see 146.

²⁴⁸ *Barrucand, Marianne, & Bednorz, Achim, *Architecture maure en Andalousie*, (Cologne 2002), including some out-of-the-way images.

²⁴⁹ Acien Almansa, Manuel, & Triano, Antonio Vallejo, “Cordoue,” in Garçin, *Grandes villes*, 117–34.

²⁵⁰ Viguera Molins, Jesús, & Castillo Castillo, Concepción, eds., *El esplendor de los Omeyas cordobeses: La civilización musulmana de Europa Occidental*, (Granada 2001).

²⁵¹ *Zozaya, Juan, “Las influencias visigodas en al-Andaluz,” *CCARB* 34 1987, 395–425; see 405ff. for a typological survey. Tailhan, J., ed., Anonymous of Córdoba, *Chronique rimée des derniers rois de Tolède, et de la conquête d’Espagne par les Arabes*, (Paris 1885), dated 753, lines 886–9: “Atque in eadem infelici Spania, / Córdoba, in sede dudum patricia. / Quae semper extitit, prae caeteras civitates adiacentes opulentissima, / Et regno Wisigotorum primitivas inferebat delicias, regnum efferum collocant.”

²⁵² Overview in Dodds, Jerrilynn, “The Great Mosque of Córdoba,” in Dodds, Jerrilynn D., ed., *Al-Andalus: the art of Islamic Spain*, (New York 1992), 11–25. Golvin, Lucien, *Essai sur l’architecture religieuse musulmane*, 4, *L’Art hispano-musulman*, (Paris 1979), 28–40 for early descriptions of the Mezquita.

ture²⁵³—a comparison to which the poets were alert,²⁵⁴ just as they were to the colourfulness of the marble.²⁵⁵ Her scholars were many, and traveled extensively, so were certainly aware of the range of the competition.²⁵⁶ The city was likewise equipped with marble-rich palaces, of which scarcely a trace intra muros survives, and which may well have followed the tradition of marble-rich Roman villas in the area.²⁵⁷ One model might have been the spectacular Tetrarchic-dated complex discovered when the AVE train station was built,²⁵⁸ which had a marble-walled basilica in the manner of Trier, and was no more than 500m from the site of the Alcazar, perhaps one reason why the latter was supposedly rich in classical remains.²⁵⁹ Not unusually, since several Islamic baths in Spain were built on Roman remains, the marbled palace bath survives²⁶⁰—and supposedly Al-Mu'tadid of Seville went with his harem to a bath ornamented with marble statues.²⁶¹ The Monastery

²⁵³ Cf. Al-Makkari, *History*, I.211: the Dimashk Palace in Córdoba was “supported by beautiful marble columns, and the floors paved with mosaic of a thousand hues.”

²⁵⁴ Ibn Hayyam, *Crónica de los emires Alhakam I y Abdarrahan II entre los años 796 7 847*, (Saragossa 2001): 174 for praise by Utman b. Almutanna: “no tiene igual en toda Mesopotamia, / ni nada similar construyeron los sirios; / nada igual se construyó desde que existieron / los genios de Salomón, eso es todo.”

²⁵⁵ *Ibid.*, 177 for the anonymous lines: “Tiene columnas verdes y rojas, / cual si en ella brillarán jacintos y topacios.”

²⁵⁶ Ávila, María Luisa, “The search for knowledge. Andalusí scholars and their travels to the Islamic east,” *Medieval Prosopography* 23 2002, 125–39; her source lists 527 biographies between 796 and 954—and 225 of these travelled to the East—38%—and they stayed there an average of 4 to 7 years.

²⁵⁷ Vaquerizo Gil, Desiderio, “El uso del mármol en la decoración arquitectónica y escultórica de villae cordobesas,” in Noguera Celdrán, José Miguel, ed., *Poblamiento rural romano en el suroeste de Hispania*, (Murcia 1995), 81–106; Wickham: *Framing*, 219ff. for the little that is known about how Christian aristocracies lived in Spain.

²⁵⁸ Collins, Roger, *Spain: an Oxford archaeological guide*, (Oxford 1998), 117–18.

²⁵⁹ Rubiera Mata, *Arquitectura en la literatura árabe*, 122–3 for Al-Makkari, relaying Ibn Basqual: “Es un palacio real mas importante que ha existido desde los tiempos del profeta Moises. En el hay construcciones antiguas y monumentos maravillosos de los griegos, de los romanos, de los godos y de otros pueblos aun mas antiguos...maravillosos zafarechos con pilones de mármol romano de bellisimos dibujos.”

²⁶⁰ Vaquerizo Gil, Desiderio, *Guía arqueológica de Córdoba*, (Córdoba 2003), 102ff., 144, 177ff. The author sees its influence (108) in several buildings in Córdoba, including the Mezquita, not least in its re-used marble.

²⁶¹ Cressier, Patrice, “Prendre les eaux en al-Andalus. Pratique et fréquentation de la Hammam,” *Médiévales* 43 2002 (“Le bain: espaces et pratiques”), 41–54; 46 for Ibn Zaydun’s story; 43 fig 1 for the principal toponyms al-hamma/Alhama. Rubiera Mata, *Arquitectura en la literatura árabe*, 99–100 for an imagined bath constructed in the time of Almanzor: “Las piedras seran de mármol, colocadas macho con hembra. En medio del bano habra un zafareche con figuras de pavos, galechas y leones de cobre y mármol que arrojen agua caliente y fría...En el bano habra figuras de todos los animales del mundo.”

of S. Clara en Tordesillas (Valladolid), endowed in 1363 and converted from the palace in that city, contains 25 columns and capitals some of which Torres-Balbas connects with the 10th-century extension to the Mezquita.²⁶² Visigothic Córdoba also offered sources of useable materials, not least the church of S. Vicente.²⁶³ Iberia imported rare marbles in Roman times²⁶⁴—and so extensively that, given such palaces, villas such as El Ruedo (inhabited 1st–7thC AD) and the surviving opus sectile floors in Córdoba,²⁶⁵ it was not essential for the Moslems to go elsewhere to see how the Romans “did marble.”²⁶⁶ Itálica had a wide range, as surely did other sites.²⁶⁷ Indeed, a story of the founding of Córdoba relies on the excavation of an ancient building found while hunting. This was “a large and magnificent building... a most amazing structure, all built with large blocks of stone joined together with molten lead”—so perhaps the spoliation of Roman Córdoba began immediately, and not only for the mosque. For the palace had an interior “full of primeval constructions, and wonderful remains of the Greeks,

²⁶² Torres Balbas, Leopoldo, “El Baño de Dona Leonor de Guzmán en el Palacio de Tordesillas,” in Casamar, Manuel, ed., *Obra dispersa I: Al-Andalus*, (Madrid 1981), 29–45.

²⁶³ Marfil Ruiz, Pedro, “Córdoba de Teodosio a Abd al-Rahman III,” in Caballero Zoreda, L., & Mateos Cruz, P., eds., *Visigodos y Omeyas. Un debate entre la Antigüedad tardía y la alta Edad media*, (Madrid 2000), 117–41; 123–30 for S Vicente; 120–3 for Cercadilla; fig 7 for a paleochristian inscription under Abd al-Rahman I’s prayer hall, and fig 8 for a paleochristian-byzantine mosaic under the floor of same mosque’s central nave—left alone, and not reused.

²⁶⁴ Mayer, Marc, “Aproximación al problema de la importación del mármol en la Hispania romana,” *Le commerce maritime romain en Méditerranée occidentale*, (Barcelona 1990), 265–278; for an example cf. Otña Hermoso, Pedro, “La importación de mármol en la villa romana de Els Munts (Altafulla, Tarragona),” *Anales de arqueología cordobesa* 13–14 2002, 147–166.

²⁶⁵ Vaquerizo Gil, *Guía arqueológica de Córdoba*, 261–4, 264.5.

²⁶⁶ Rodá de Llanza, Isabel, “El mármol como soporte privilegiado en los programas ornamentales de época imperial,” in Ramallo Asensio, Sebastián F., ed., *La decoración arquitectónica en las ciudades romanas de occidente*, (Murcia 2004), 405–420. Lazzarini, *Pietre e marmi antichi*, for marbles at Córdoba in primary use: alabaster (a pecorello and cotognino), granito del foro, porphyry red and green, giallo antico, africano, breccia corallina, portasanta, breccia di settebasi, rosso antico, cipollino verde, verde antico, and (of course) broccatello di spagna: NB only ONE of these is an Iberian stone.

²⁶⁷ Canto, A., “Avances sobre la explotación del mármol en la España romana,” *Archivo Español de Arqueología* 50–1 1977–8, 165–87; see 186: numidian, green porphyry, pavonazzetto, portasanta, lumachella, africano and verde antico; 171–2 for Macael quarries. For imported marble at Itálica probably since Augustus, cf. Polvorinos, A., et al., in ASMOSIA 2007: “Itálica: use of local marble in Augustan Age.”

Romans and Goths,” and with a knocker on the gate taken from one of the gates of the city of Narbonne.²⁶⁸

It was almost a century after the capture of the city before the Mezquita was founded, in a city already rich in mosques,²⁶⁹ and certainly expanding.²⁷⁰ It was supposedly funded with booty from Narbonne, as already mentioned, and yet more arrived from Narbonne after Hisham’s assault in 793. One source says that this included “loads of earth out of the demolished walls” (presumably old marble), “and not only was the mosque built of those materials, but a large quantity still remained piled up in front of the royal palace.”²⁷¹ Again, columns and mosaic tesserae were supposedly sought from the Byzantine Emperor,²⁷² in what is perhaps a deliberate echo of the building of the Umayyad Mosque in Damascus. And although there is no supporting evidence for the original mosque, there are masons’ marks, some in Latin letters, on the columns of enlargement of Al-Hakam II (961–76) and that of Hisham II (976–1002). Several of these are on columns that have been moved, so was something done to make such columns fit their new location, perhaps by Christians.²⁷³ This mosque illustrates through its various expansions²⁷⁴ the Islamic love affair with marble and its rivalry with architectural achievements in their eastern homelands,²⁷⁵ to which

²⁶⁸ Al-Makkari, *History*, I, 209, 207.

²⁶⁹ *Zanón, Jesús, *Topografía de Córdoba almohade a través de las fuentes árabes*, (Madrid 1989), 1–107, listing 29 from al-Makkari’s over 490.

²⁷⁰ Acien Almansa, Manuel, & Vallejo Triano, Antonio, “Urbanismo y estado islámico: de Corduba a Qurtuba—Madinat al-Zahra,” in Cressier, Patrice, & García-Arenal, Mercedes, eds., *Genèse de la ville islamique en al-Andalus et au Maghreb occidental*, (Madrid 1998), 107–36.

²⁷¹ Al-Makkari, II, 99; the brass knockers of the gates also went to Córdoba.

²⁷² Cutler, Anthony, “Gifts and gift exchange as aspects of the Byzantine, Arab, and related economies,” *DOP* 55 2001, 247–78; see 254; and note 39 for scepticism about the gifts of mosaic tesserae; Stern, Henri, *Les mosquées de la Grande Mosquée de Cordoue*, (Berlin 1976).

²⁷³ Souto, Juan A., “Stonemasons’ identification marks as a prosopographical source. The case of Umayyad al-Andalus,” *Medieval Prosopography* 23 2002, 229–45 (part of a project called *Epigrafía y construcción en el al-Andalus omeya*); see 231: both Qasr Al-Hayr East and Khirbat Al-Mafjar have graffiti in Greek letters, but also in Arabic and Hebrew—so manpower could have been various, and even brought in from afar.

²⁷⁴ Abd Ar-Rahman I: 785–93, Abd Ar-Rahman II: 833 and 848 (who during his long reign emptied the Treasury by his lavish support of the arts), Al-Hakam: 964–5; al-Manzor: 987ff.

²⁷⁵ Khoury, Nuha, “The meaning of the Great Mosque of Córdoba in the tenth century,” *Muqarnas* XIII 1996, 80–98; see 83 for a typological comparison to al-Walid’s mosques in Syria and Jerusalem 705–15.

presents were returned.²⁷⁶ Stylistically it has some echoes from North Africa,²⁷⁷ as well as with antique triumphal imagery at Spalato, and at Kairouan.²⁷⁸ As a reflection of the Prophet's mosque at Medina, it has been held to be a monument to Ummayyad identity, eventually to be "preserved as the repository of Castilian Spain's signs of victory."²⁷⁹ For Al-Edrisi, it beat them all, and he especially mentions the marble windows, each worked with geometrical designs and all different.²⁸⁰ Córdoba was also provided with pierced marble windows, similar to those in Damascus, and surely too large and numerous to be old, even though they are not of identical dimensions.²⁸¹ The same might be true of the veneer panels in the mihrab.²⁸² Other similar marble screens survive from Córdoba, and from Seville²⁸³—so perhaps the Moslems were quarrying marble nearby from the later 8th century. Marble was perhaps seen as a material for connoisseurs, as was antiquity itself,²⁸⁴ and the marble capitals were carefully arranged to impose a sense of hierarchy on the prayerhall.²⁸⁵ For Pavón Maldonado, many of the decorative patterns used at Córdoba and Madinat are inspired by

²⁷⁶ Al-Baladhuri, 366: on the capture of Toledo Tarik "carried off a wonderful table, which Musa ibn-Nusair, on his return in the year 96, offered as a present to al-Walid ibn-'Abd-al-Malik in Damascus."

²⁷⁷ Caballero Zoreda, Luis, "Un canal de transmisión de lo clásico en la Alta Edad Media española. Arquitectura y escultura de influjo omeya en la Península Ibérica entre mediados del siglo VIII e inicios del siglo X (II)," *Al-Qantara* 15.2 1994, 321–48, relates decorative reliefs and capitals in the Peninsula to work at Khirbat Al-Mafjar; Mills, Marvin H. "The Pre-Islamic provenance of the Mosque of Córdoba," *Al-Masaq*, 1991, IV: 1–16.

²⁷⁸ Torres Balbas, L., "La portada de S Estebán en la Mezquita de Córdoba," *Al-Andalus* XII.1 1947 127–45.

²⁷⁹ Khoury, "The Meaning of the Great Mosque," 80–1; Martínez-Gros, Gabriel, *L'idéologie Omeyyade: la construction de la légitimité du Califat de Cordoue, X^e–XI^e siècles*, (Madrid 1992).

²⁸⁰ Al-Edrisi, *La géographie*, II, 60–2; of the arcades before the mihrab, "une délicatesse d'ornements supérieure à tout ce que l'art des Grecs et des Musulmans a produit en ce genre de plus exquis."

²⁸¹ Brisch, Klaus, *Die Fenstergitter und verwandte Ornamente der Hauptmoschee von Córdoba: eine untersuchung zur spanisch-islamischen Ornamentik*, (Berlin 1966); summary in Brisch, Klaus, "Las gelosías de las fachadas de la gran Mezquita de Córdoba," *Al-Andalus* 26.2 1961, 398–426.

²⁸² Golvin, *Essai sur l'architecture religieuse musulmane*, 4, 124–5, and 128–32 for the window claustra.

²⁸³ Dodds, *Al-Andalus*, cat. 42; Caliphal period, 980–90; probably from same workshop as those for the Mezquita, but different dimensions.

²⁸⁴ Ibn Ghalib (died 1044) wrote a book entitled *Contentment of the soul in the contemplation of the ancient remains found in Andalus*: cf. Al-Makkari I, 77.

²⁸⁵ Ewert & Wisshak, *Forschungen zur almohadischen Moschee*, 56ff.

Roman floor mosaics,²⁸⁶ while Kubisch looks east, to motifs at Qasr al Hayr West, Khirbat Al-Mafjar, and Samarra.²⁸⁷

But perhaps no one source supplied such a variety of elements, which are applied with thoughtful attention to the colour and quality of shaft and capital, with the best material in the most prestigious locations, and the development of a completely new technique for ordering column-shafts.²⁸⁸ And we cannot expect luxuries (including marble) to show up specifically in records, because it has no “systematic scale, only bulk traffic does that.”²⁸⁹ Al-Edrisi (writing c.1153) relates²⁹⁰ that the structure had 1,000 marble columns. Much higher figures are relayed by Al-Makkari—with a between-the-lines jubilation that Santiago da Compostela had only about two hundred columns, even if these were covered with ornaments in gold and silver.²⁹¹ Mas’udi adds to this 113 brass chandeliers, the largest of which could hold at least 1,000 lights,²⁹² perhaps mindful of the Koran referring to lighting in mosques (24.36: “The Light”). Al-Edrisi guessed a greater number,²⁹³ and such chandeliers are most important in making the marble gleam in what can sometimes be a gloomy building, lacking in natural light. Imamuddin counts 1,293 columns in all, and neatly summarises the result as combining “in exquisite harmony the columns of the Roman, the capitals of the African, the arches of the Syrian, the mosaics of the Byzantine, and the battlements of the Persian. Thus are assimilated in this mosque the ideas, the materials, the devices, the ornamentation of many periods and of many peoples.”²⁹⁴ Totalling column-numbers here is a difficult task, because to those at ground level might also be added the smaller ones decorating the arcading structures; and of course, the more columns one can list, the more prestigious the structure. To the

²⁸⁶ Pavón Maldonado, Basilio, “La formación del arte hispanomusulmán. Hacia un corpus de la ornamentación del Califato de Córdoba. Decoración geométrica rectilínea,” *Al-Andalus*, 38.1 1973, 195–242.

²⁸⁷ Kubisch, Natascha, “La decoración geométrica del Salón Rico de Madinat al-Zahra,” in Vallejo Triano, Antonio, ed., *Madinat al-Zahra: El Salón de Abd al-Rahman III*, (Córdoba 1995), 59–82.

²⁸⁸ dvd_cordoba_spolia_columns.doc.

²⁸⁹ Wickham, Chris, “The Mediterranean around 800: on the brink of the second trade cycle,” *DOP* 58 2004, 161–74; see 163.

²⁹⁰ Al-Edrisi, *La géographie*, II, 59.

²⁹¹ Al-Makkari, II, 217ff., 229.

²⁹² Al-Mas’udi, *Prairies*, II, 504–5.

²⁹³ Al-Edrisi, *La géographie*, II, 59.

²⁹⁴ Imamuddin, S.M., *Muslim Spain—711–1492 AD: a sociological study*, (Leiden 1981), 172–3.

prayer hall we must add the ornamentation of the minaret by Abd Ar-Rahman III (reign ended 958). This, according to Al-Edrisi, was very elaborate, with two tiers of arcades supported by beautiful marble columns, three hundred in all, inside and out, large and small.²⁹⁵ According to Al-Makkari, this minaret was demolished in 951, but it is not known why this happened, or where the materials went.

But if the columns and many of the capitals were antique, the technique of open and double-storey arcading (with no infill) helped in keeping the interior as well-lit as possible. It is possible but unlikely that this wayward superimposition was invented in Córdoba. In Yemen, for example, pre-Islamic columns were often re-used, which “often required placing columns on top of each other until the required height was reached,” as in the mosque of Sulayman Ibn Dawud (1074) in Marib; and at San’a structural elements came from the church of Abraham.²⁹⁶ The tall columns at Damascus had allowed a flat entablature on top of the arcade, standing on which the upper arcade could support the roof. Here, however, the columns used were simply too short for such a device. At this point we should remind ourselves that the Moslems were not over-concerned about “correct” classical proportions for columns and capitals—hence perhaps their later interest in elongated capitals. We might make another comparison outside the classical ambit, namely Persepolis. Here the tall columns of the north portico of the Apadana have their reach nearly doubled by a tall base and then a succession of “capitals” topped by recumbent bulls.²⁹⁷

It is generally assumed that the expansion of both Mezquita and city went hand in hand, both perhaps related to the obliteration of most elements of the Roman city, including its very grid.²⁹⁸ Hence the Friday Mosque expands to accommodate a growing population, and of a magnificence to suit a city which was called by the Saxon nun Hroswitha “a shining jewel, a new and magnificent city.”²⁹⁹ Increases in population may indeed have been the spur to successive enlargements.

²⁹⁵ Al-Edrisi, *La géographie*, II, 62–3—as well as gilded inscriptions etc.; the minaret was 100 coudées [c.45m] high.

²⁹⁶ Finster, Barbara, “An outline of the history of Islamic religious architecture in Yemen,” *Muqarnas* 9 1992, 124–47.

²⁹⁷ http://www.persepolis3d.com/data_frameset/main_03.htm.

²⁹⁸ Wickham: *Framing*, 661–2 for “standard, low-key urban continuity” of Mérida, keeping its street-plan, with cathedral and palace its city-focus (not the forum) in the 6th century: “Mérida was clearly always occupied.”

²⁹⁹ Crespi, Gabrieli, *Gli Arabi in Europa*, (Milan 1982), 107.

Torres Balbas, for example, sees the 10th-century expansion to perhaps 100,000 inhabitants as unique in Europe, but nevertheless exaggerated for propaganda purposes.³⁰⁰ I suggest that irrespective of such population increase, enlargements were only possible as sufficient marble monoliths and capitals—increasingly difficult to find, hence the introduction of freshly-cut sculpture³⁰¹—were sought and stockpiled.

Scouring and digging ancient settlements took time. Over its building periods, for example, the Mezquita accumulated 84 Roman Corinthian capitals, but their source(s) are unknown. We can only surmise that Itálica was buried together with its superb examples, and was not dug. Mérida was another matter, and perhaps her capitals (72 survivals are catalogued)³⁰² were unavailable because this was a thriving Moslem city, hence perhaps already re-used in that city's own mosque.³⁰³ Many antiquities were surely used when Bishop Fidelis built a basilica for Eulalia c.560.³⁰⁴ Although there are insufficient archaeological remains to plot the transition from Visigothic to Islamic at Mérida,³⁰⁵ Alicia Canto underlines just how much the Arabic sources can tell us about the continuing occupation of the city.³⁰⁶ Unfortunately these are late. An anonymous 11th-century account writes of Mérida as a

³⁰⁰ Torres Balbas, Leopoldo, "Extension y demografía de las ciudades hispanomusulmanas," *Studia Islamica* 3 1955 35–59; see 40, 54ff.

³⁰¹ Terrasse, Henri, "La sculpture monumentale à Cordoue au IX^e siècle," *Al-Andalus* 34.2 1969, 409–17: a renaissance of monumental sculpture under 'Abd Ar-Rahman II due, he suggests, to workmen from abroad, possibly resulting from the embassy from Emperor Theophilus in 834–40.

³⁰² Diaz Martosa, Arturo, *Capiteles corintios romanos de Hispania*, (Madrid 1985), plates at 229–32 for Itálica.

³⁰³ What did an anonymous 14th–15thC commentator see? Did he get the aqueduct mixed up with the theatre, or some later palace? Alvarez, Pérez, & de los Angeles, María, *Fuentes árabes de Extremadura*, (Salamanca 1992), 190–1: "están las pilastras, columnas de mármol blanco, azul y rojo, de treinta codos de altura; sobre el capitel de cada una de ellas se alza otra de veinte codos, apoyada sobre la primera con equilibrio exacto y arte admirable; el intervalo entre las columnas es de veinte codos. Sobre la superior se asienta horizontalmente otra, también de mármol, ahuecada como si fuera un canal, por la que corre el agua..." The tall shafts of the Corinthian temple were left alone, because they were plastered limestone or, more likely, because they were in drums.

³⁰⁴ ActaSS 7 Feb^r: ita nimirum ipsius ædificij spatia longe lateque altioribus columnibus erigens, pretiosaque atrij columnarum ornatibus suspendens, ac pauimentum omne, vel parietes cunctos, nitidis marmoribus vestiens."

³⁰⁵ Cressier, Patrice, "El acarreo de obras antiguas en el arquitectura islámica de primera época," in Valdés Fernández, Fernando, & Velázquez, A., eds., *La islamización de la Extremadura romana*, (Mérida 2001), 309–34.

³⁰⁶ Canto, Alicia, "Importancia de las fuentes árabes para la arqueología hispano-romana: el caso di Mérida," in *ibid.*, 13–86. See 70–2 for a résumé of the additions to our knowledge provided by Arabic sources.

quarry for stone,³⁰⁷ Al-Himyari reports shining marble in her walls,³⁰⁸ and Abu Muhammad Al-Rusati (1074–1147) admires the city's rulers because “with them, the antique remains were renewed with solid and handsome buildings, and amazing marbles.”³⁰⁹ Over a generation later Yaqt (1179–1228, who knew about such matters, because he was from Byzantine Asia Minor), admired several churches rich in marble, and the “great palace” (viz. the Forum) where, he notes, Abd Allah ben Ta’laba, the new governor of Mérida, went to search for marble in 835.³¹⁰ This might have been what a Franciscan admired in the mid-14th century, for he writes that “it contained columns of marble [“treynnta cobdos”—c.13.5m] in length and many of them, with arches one to the next, and carried water above them as far as a place which they called ‘alcarmoja.’”³¹¹ The whole city aroused plenty of Muslim admiration, starting with its walls, which apparently contained marble blocks; Al-Razi (d.955) saw a great block taken from the walls, and relays the Wadi Tha’laba’s enthusiasm for the marble there.³¹² Perhaps

³⁰⁷ Ibid., 27, “monumentos, un puente, alcazares e iglesias que exceden a toda ponderación... En tanto v descubrio Muca una cantera de piedra”—although there are indeed several marble quarries near the city: cf. Cunchillos, Miguel Cisneros, *Mármoles hispanos: su empleo en la España romana*, (Saragossa 1988), fig. 5.

³⁰⁸ Pérez Alvarez, *Fuentes árabes*, 79: “Dijo Hasim bn ‘Abd al-‘Aziz, al recordar la belleza de Mérida y sus e que era el aljofar—xcelentes mármoles: Yo estaba prendado del mármol y cuando vine de gobernador de Mérida los buscaba para enviar los que me parecían bellow. Y mientras recorria, cierto día, la ciudad mire hacia una losa de mármol que estaba en su muralla, de intensa nitidez, podía pensar el que la mirara que era el aljofar”—and then finds an inscription (de los extranjeros) nobody can translate, except for one old Christian.

³⁰⁹ Ibid., 82: Al-Tawzari says much the same, adds “para hacer patente su poderio”—and then mentions the marble inscription in the walls “de intenso brillo y profuso jaspeado.”

³¹⁰ Cunchillos, *Mármoles hispanos*, 27, 31, 59ff. Canto, “Importancia de las fuentes árabes,” 39: “Es una hermosa ciudad en lo que hay muchos mármoles y posee edificios muy altos. En ella hay bellos monumentos de la antigüedad dignos de admiración.”

³¹¹ Jiménez de la Espada, Márcos, ed., “El libro del conocimiento de todos los Reinos... que escribió un franciscano español á mediados del siglo XIV,” *Bolletín de la Sociedad Geográfica de Madrid* 2 1877, 702–14.

³¹² Christophe Picard, “Description des sites antiques dans le cadre urbain d’al-Andalus par les écrivains arabes du Moyen-Age: l’exemple de Mérida”, in Gyselen, Rika, ed., *Sites et monuments disparus d’après les témoignages de voyageurs*, Res Orientales 8 105–117; see 107 for quote; 1q09–11 for the beauty of M’s classical monuments; and 113: “Il [Tha’laba, Walid in 742] commença à raconter les beautés de Mérida, et il s’exprima en ces termes: j’avais grand envie de marbres afin d’en orner les constructions neuves que je faisais édifier. [and at Mérida] j’y trouvais des marbres et d’autres blocs de pierre d’une grande beauté. Je fis alors enlever et emporter tous ceux dont je pensais qu’il plairaient à mon père. Un jour que je circulais par la ville, mon regard

for this reason Al-Himyari believed the materials came via King Ishban (of the Romans) from the Sack of Jerusalem, along with the Table of Solomon and other treasures³¹³ (he also thought the columns in St. Peter's came from Jerusalem). Al-Hakam sacked Mérida in 830:³¹⁴ was any marble in the booty?

For Al-Makkari, and perhaps for its contemporaries, the Mezquita did indeed proclaim Moslem triumph: Hisham II's additions at Córdoba used Christian slaves from Castile "and other infidel countries working in chains at the building instead of Moslems, thus exalting the true religion and trampling down polytheism."³¹⁵ Hisham (ruled 976–1002) supposedly constructed his section with some new materials,³¹⁶ so perhaps some of the Christians were quarrymen, as this was a standard task for slaves. However, it seems unlikely that the 1,417 columns reported by Ibn Idhari for the prayerhall and the minaret³¹⁷ did not include old ones.

Near Córdoba, Madinat Al-Zahra is another large Islamic palace which had sumptuous fittings and a short life, with the difference that it has been much studied and sections of it dug and in part reconstructed, from the one-tenth of the site so far uncovered.³¹⁸ Little is known about Roman and Visigothic palace architecture in Iberia (or elsewhere for that matter), so we have no local pointers to sources for the lavishness of Madinat's use of marble.³¹⁹ The Salón Rico uses sumptuous columns but, as in the Mezquita, these are short, so that the horseshoe arches rise high, and the stucco decoration echoes the patterning of the marble. This style accommodates short re-use very well, as can be seen from the portico to S. Bartolomé in Córdoba, where the very short and mixed-marble columns support high, compensating arches.

se porta sur une dalle de marbre fixée dans le rempart: elle était d'une telle blancheur et d'une telle pureté qu'on l'eut prise, à la voir, pour un bloc de pierre précieuse."

³¹³ Ibid., 112; they were taken to Mérida and Toledo.

³¹⁴ Ibn Hayyam, *Crónica*, 287–8.

³¹⁵ Al-Makkari, *History*, I.228. Two chained Saracens support the column dividing the entrance to the cathedral at Oloron-Sainte-Marie (1102ff.)—so the Christians at least wished to repay the compliment.

³¹⁶ Collins, *Spain: an Oxford archaeological guide*, 121.

³¹⁷ Golvin, *Essai sur l'architecture religieuse musulmane*, 4, 39.

³¹⁸ Brisch, Klaus, "Madinat al-Zahra in der modernen archäologischen Literatur Spaniens. Ein Forschungsbericht," *Kunst des Orients*, IV 1963, 5–41; 13–14 for chronology of construction; 18–41 for the modern literature.

³¹⁹ Ruggles, D. Fairchild, *Gardens, landscape, and vision in the palaces of Islamic Spain*, (University Park, PA 2000), 37ff.

Ambassadors were received at Madinat, and improvised poetic recitations could hymn the splendour of the Caliph by comparing his glory with the marble and mosaics of the setting, in this case in the East Salon for the Fiesta della Ruptura in 971:

Los que han visto tu rostro han contemplado el esplendor de la luna
nueva,
aunque algunos no hayan salido a ver la del cielo,
porque hay dos lunas: tu rostro, abrillantado por el ayuno,
y la del cielo...
Cubren sus salones mantos de mosaico;
a él le cubre un manto de majestad, que nadie tejió
Su excelsitud erigió un peristilo sagrado,
como el peristilo que forman los bordes del cielo luciente;
...
Los maderos de los almimbares vibran de anhelo
por que los pise este ser brillante y esplendoroso.³²⁰

Of the Madinat marble, according to Al-Makkari, 40 columns supposedly came from the Byzantine Emperor as a personal gift; some from Rome, and 19 from the land of the Franks (probably Narbonne). Large quantities in mostly green and red marble arrived from Carthage, Sfax and other African locations—1,013, writes Ibn Idhari in the *Al-Bayan*.³²¹

We do not know where most of the marble from Madinat went, although it probably furnished mosques and palaces throughout Moslem Spain, and then Christian buildings after the Reconquista. At least one palace was fitted out with its marbles, for one source writes that materials from both Madinat and the Alcazar were taken by Ibn Basa in the time of Ibn Al-Saqqa (1063), Governor of the Banu Yahwar—but not to where. Al-Mansur visited the ruins in 1190 with the aim of meditating on the monuments and peoples of past centuries; and he ordered the statue over the entrance gate removed.³²² He may also have taken marble away. Indeed, Madinat's sumptuousness made it a target for spoliation well before the visit of Al-Mansur. Al-Makkari writes that a Holy Man exclaimed on seeing Madinat, "O Palace of Kings! Every house in this

³²⁰ García Gomez, Emilio, *Anales palatinos del califa de Córdoba al-Hakam II, por Isa Ibn Ahmad al-Razi (971–5)*, rev ed., (Madrid 1967): 75–6, 80, 173–4 for ambassadors; 105ff. for the recitation.

³²¹ Ruggles, *Gardens, landscape*, 60.

³²² Zanón, *Topografía de Córdoba almohade*, 22–3, 77–9.

country has contributed to thy ornament and perfection: thou shalt also (when in ruins) afford materials for every house.”³²³ This could be just a topos, or a tradition of just how much old material (apart from the columns mentioned) went into the immense construction. Madinat Al-Zahra offers some idea of the richness of other long-gone palaces in Iberia, and allows us to view a tradition of marble re-use that continues right into the 18th century with the palaces of Moulay Ismael (d.1727) in Meknès, with their marble columns and capitals imported from Marrakech, and a Jardin de Marbre.³²⁴ So plentiful and rich were his palaces, we are told, that in a hundred years only half were demolished, their wood, ceramics and marble being used to build mosques and madrasas all over Morocco.³²⁵ At Saragossa the Aljafería survives, retaining a good number of old shafts, some splendid capitals, and the remains of fine decoration in its mosque³²⁶—not surprisingly, given the richness of the city’s theatre,³²⁷ and its white “marble” walls.³²⁸ But it is tiny in comparison with the size and luxury of Madinat.

One effect of the great building works at Córdoba and Madinat Al-Zahra was the creation of new styles out of new marble—a factor that might of course be a spin-off from shortage of old pieces. But this also shows how copying gives way to creation, influencing the conception of later monoliths.³²⁹ In a way that happens in the West only when Gothic column-capitals break free of their Romanesque antecedents, many of which were slavishly Roman. Spain was producing original and inventive capitals (inspired by Roman example) much earlier than

³²³ Ruggles, *Gardens, landscape*, 138.

³²⁴ Barrucand, Marianne, *Urbanisme princier en Islam: Meknès et les villes royales islamiques post-médiévales*, (Paris 1985), 60, 71–2, and 101–3 for the Jardin de Marbre.

³²⁵ Hamet, Ismael, trans, Ahmed Ben Khaled En-Naciri Es-Slaoui, *Histoire du Maroc*, IV, (Paris 1934), I, 73–4.

³²⁶ Subiza, Bernabé Cabañero, “Los capiteles islámicos del palacio de La Aljafería de Zaragoza: sistemización y estudio de su ubicación original: Presentación de cuatro capiteles inéditos,” *Aragón en la Edad Media* 16 2000, 83–110.

³²⁷ Laupente, P., et al., *Marbles and coloured stones from the Theatre of Caesaraugusta (Hispania)*, poster at ASMOSIA 2003: white & grey came from Saint-Béat, Thasos, Carrara, Pentelikon, Proconnesus, Afyon and Paros; coloured stones included giallo antico, cipollino, pavonazzetto, portasanta, Santa Tecla, and porfido nero.

³²⁸ *Al-Gharnati, Voyage*, 45 “Quant à la ville blanche, c’est une construction de pierres blanches. D’après ce que l’on raconte, elle fut édifée par les djinns pour Salomon.”

³²⁹ Barceló Torres, María del Carmen, “Columnas ‘arabizadas’ en basílicas y santuarios del occidente de al-Andalus,” *Cuadernos emeritenses* 17 2001 (issue dedicated to La islamización de la Extremadura romana), 87–138.

in the West, and of exceptionally high quality.³³⁰ These are often standardised and formalized in a manner which underlines the fact that they were fresh-quarried, the old/new break appearing to be between the 9th and 10th centuries.³³¹

An index of the prestige of Córdoba work is the spread of her work into later Islamic buildings,³³² as well as into Christian ones³³³—some very much later.³³⁴ Indeed, the Christians of Spain lived with and clearly prized Caliphal material—old by the time they re-used it. As late as 1508, the Colegiata at Torrijos erected a façade of Islamic column shafts, capitals and bases, with more in the choir.³³⁵ It is ironic that, as Cressier points out, we have lost the context for about 80% of the original use of such capitals, obscuring the development and application context of such superb material, with its inventive variations on the “theme” of ancient Roman capitals.³³⁶

The example of the Mezquita certainly inspired builders across the Straits, where the Great Mosque at Ceuta, built in 1018, was five-aisled with 180 marble columns (demolished by Charles V). The New Mosque (Madrassa Al-Yadida), built in the earlier 14th century, was described

³³⁰ Survey in Cressier, Patrice, and Marinetto Sánchez, Purificación, “Les Chapiteaux Islamiques de la Péninsule Ibérique et du Maroc, de la Renaissance Émirale aux Almohades,” *Acanthus Colloquium*, 211–46.

³³¹ Pavón Maldonado, Basilio, “Nuevos capiteles hispano-musulmanes en Sevilla. (Contribución al corpus del capitel hispano-musulmán),” *Al-Andalus* 31.1/2 1966, 353–63; Cressier, Patrice, “El renacimiento de la escultura de capiteles en la época emiral: entre Occidente y Oriente,” *Cuadernos de Madinat al-Zahra* 3 1991, 165–187; Noack-Haley, Sabine, “Los capiteles de la mezquita de Madinat al-Zahra,” *Cuadernos de Madinat al-Zahra* 5 2004, 413–443.

³³² Cressier, Patrice, & Cantero Sosa, M., “Diffusion et remploi des chapiteaux omeyyades après la chute du califat de Cordoue: politique architecturale et architecture politique,” *Histoire et archéologie de l'Afrique du Nord*, (Paris 1995), 159–75.

³³³ Alegria, Josep Vicent Lerma, & Cressier, Patrice, “Un nuevo caso de reaprovechamiento de capiteles califales en un monumento cristiano: la Iglesia de San Juan del Hospital (Valencia),” *Cuadernos de Madinat al-Zahra* 4 1999, 133–143.

³³⁴ Pavón Maldonado, Basilio, “Estudio arqueológico de nuevos capiteles califales y dos lápidas granadinas descubiertas en Torrijos,” *Al-Andalus* 33.2 1968, 435–44:—viz found in the chapel choir of the Convento de Madres Concepcionistas Franciscanas at Torrijos (built early 16thC).

³³⁵ Pavón Maldonado, Basilio, “Las columnas califales de la Colegiata de Torrijos. (Contribución al Corpus del capitel hispano-musulmán),” *Al-Andalus* 31.1/2 1966, 363–72; fig.1 for diagram of the façade, and passim for 15th-century to 17th-century buildings incorporating similar pieces; and again, same periodical, 33.2 1968, 435–44 for re-used elements in the choir of the Convento de Madres Concepcionistas Franciscanas, also at Torrijos.

³³⁶ Cressier, Patrice, “Le chapiteau émiral: les problèmes de son étude,” *Capiteles corintios*, 87–102; see 88, 94–5.

as spacious and admirably decorated, with marble columns and costly veneers, by “Abu-l-Hasan, who eternalized his name with monuments which demonstrate his greatness and power.”³³⁷ The Mezquita’s minaret also set a trend.³³⁸ The echoes of Córdoba at Marrakech, in the second phase of the Koutoubia (1158ff.), and especially in the use of marble, can be seen as “trophies to emphasize the continuity between Almohad rule and the Córdoba caliphate, and thus to legitimize the dynasty.”³³⁹ The re-use seems to have had the desired effect.³⁴⁰ And these are not mere echoes but probably actual Córdoba material. We cannot of course estimate how much marble decorated the mosques, palaces and villas of Córdoba, but sufficient remained in the early 12th century for columns and capitals to be taken for the 1134–44 rebuild of the Qarawiyyin Mosque in Fez, and which it retains, “employed at strategic points in the building: in the funerary mosque as at the mihrab.”³⁴¹

The Mezquita survived a period of neglect and civil war, so that when Alfonso X was petitioned by the Bishop of Córdoba in 1261 to find a way of preserving the monument, he received the reply: “there is a need for us to impose some remedy there in the case that it should be lost, because if not, the ruin of such a noble church would be a loss.”³⁴² Unfortunately, a Cathedral was introduced into the Mezquita, supposedly prompting Charles V to comment that “You have destroyed something unique to make something commonplace.” William Lithgow, however, writing in the 1620s, especially liked “the fine Italianate church in the middle.”³⁴³ Nevertheless, the Christians treated the Muslim sections

³³⁷ Vallvé Bermejo, Joaquín, “Descripción de Ceuta musulmana en el siglo XV,” *Al-Andalus* 27.2 1962, 398–442: viz by Al-Ansari: see 413 for quote, and 413 for the Mezquita Aljama.

³³⁸ Bloom, Jonathan M., “Mosque towers and church towers in early medieval Spain,” in Gaechtens, Thomas W., ed., *Künstlerischer Austausch—Artistic Exchange*, (Berlin 1993), 361–371.

³³⁹ Hillenbrand, Robert, review of Ewert, Christian, & Wisshak, Jens-Peter, *Forschungen zur almohadischen Moschee*, in *Bulletin of SOAS* 47.1 1984, 137–9.

³⁴⁰ Viguera, María J., ed., *Ibn Marzuq, El Musnad: hechos memorables de Abd al-Hasan, sultán de los Benimerines*, (Madrid 1977), 332: “y aunque ocupa una extension mayor, los mármoles y el equilibrio de proporciones son más admirables y magníficos [en la de Tremecén]”—and nothing matches it in Orient or Occident.

³⁴¹ Ecker, Heather, “The Great Mosque of Córdoba in the twelfth and thirteenth centuries,” *Muqarnas* 20 2003, 113–41: see 115–16.

³⁴² Ecker, Heather, *Caliphs and kings: the art and influence of Islamic Spain*, (Washington, D.C. 2004), 6.

³⁴³ Hillgarth, Jocelyn N., *The Mirror of Spain, 1500–1700: the formation of a myth*, (Ann Arbor 2000), 110. The suite of Cosimo de’ Medici touring 1668–9 preferred

with respect, choosing the Capella de Villaviciosa for prestigious heraldic devices, and avoiding burials within the mihrab.³⁴⁴

Seville and Granada

For all Alfonso's and Charles V's conservationist comments on the Mezquita, little enough remained by then of Moslem Spain. Almost nothing is known of the five-naved marble-columned mosque at Jaén, commissioned in 865, though it might have been inspired by Córdoba, like the Bab Al-Mardum Mosque at Toledo.³⁴⁵ Yet both Granada and Seville deserve a mention as descendants of Córdoba, since it is indeed known that both boasted large and impressive marble-rich buildings, of which unfortunately little survives.³⁴⁶

The Great Mosque at Seville had a large prayerhall of 16 × 13 bays.³⁴⁷ Founded in 829 during the reign of Abd Ar-Rahman II, it boasted 11 naves perpendicular to the qibla wall, and marble columns supporting brick arches,³⁴⁸ again modeled on the Mezquita.³⁴⁹ All this has disappeared. The Giralda survives to suggest the splendour of the mosque and its decorations. This 50.5m-high structure included a marble doorframe and steps inside.³⁵⁰ It is, for Rodríguez Estévez, part

the Palace of Charles V to the Alhambra, where they found the lions "mal formati" and the marble columns imperfect.

³⁴⁴ Molinero Merchán, Juan Andrés, *La Mezquita-Catedral de Córdoba: símbolos del poder: estudio histórico-artístico a través de sus armerías*, (Córdoba 2005), 138: a document of 1368 to the petitioner for the mihrab area "non mandedes ni podades mandar que vos ningún otro alguno se entierre en la capelleta de las losas (el Mihrab), que era el alquiblia de los moros que está dentro de la dicha capilla de los moros."

³⁴⁵ Ewert, Christian, "Die Moschee am Bab al-Mardum in Toledo—eine "Kopie" der Moschee von Córdoba," *Madriider Mitteilungen* 18 1977, 287–354.

³⁴⁶ Guichard, Pierre, *L'Espagne et la Sicile musulmanes aux XI^e et XII^e siècles*, (Lyon 1990); commented documents: 201ff. for architectural works in Seville and Badajoz, including the Giralda, built under Al-Mansur in 1184–99.

³⁴⁷ Computer reconstruction plus plan in Gomez, Jessica M., "The cathedral and Alcazar of Sevilla Spain: a study of Christian appropriation of Islamic architecture," at <http://www.depts.ttu.edu/mcnair/PDF/Jessica.M.Gomez.pdf>

³⁴⁸ Valencia, Rafael, "Islamic Seville," in Jayyusi, Salma Khadra, ed., *The legacy of Muslim Spain*, 136–48, see 141.

³⁴⁹ Dodds, Jerrilynn, "The arts of al-Andalus," in *ibid.*, 612–13: the mosque at Seville supposedly had a nave with 16 aisles of 13 bays each; computer reconstruction in Piechotta, Magdalena V., *Sevilla almohade*, (Seville/Rabat 1999).

³⁵⁰ Amari, Michele, *Biblioteca arabo-sicula*, 2 vols (Turin 1880 & 1881). 2.84 Al Anis: when in 1195/6 by the command of Yaqub gilded apples were made for the top of

of a programme of political and religious affirmation, rich in marble,³⁵¹ including capitals that have been compared to survivals on the Palatine.³⁵² Some of these might have come from Madinat Al-Zahra³⁵³ and, like caliphal capitals in Fez, Marrakech, Rabat and Salé, might have been intended to exude political overtones, justifying the Almohads by quoting the Umayyads—unlike the re-use of similar material in the Alcazar rooms of Pedro the Cruel (1364), where they are given a conspicuous location, surely for aesthetic reasons.³⁵⁴ But others might have been local to the city, and not necessarily from Itálica: Al-Himyari tells us that “on a trouve à Seville des vestiges antiques en grand nombre ainsi que de majestueux portiques qui prouvent l’existence de temples dans la ville.”³⁵⁵ On the city’s re-conquest in 1248, Fernando III el Santo simply moved into the Alcazar (which survives in a later form: 1350ff.), and converted the mosque into a church,³⁵⁶ which was destroyed when the new Gothic structure was built.

the minaret, these were so large that the marble of the lower part of the entrance had to be taken out to get them up the stairs—so presumably re-used blocks.

³⁵¹ Rodríguez Estévez, Juan Clemente, “Alminares almohades,” in Beneito, Pablo, & Roldán, Fátima, eds., *Al-Andalus y el norte de África: relaciones y influencias*, (Seville 2004), 189–222; see 217: “En su caña se insertaron basas, columnas y capiteles califales (algunos con inscripciones alusivas al califa al-Hakam II); traídos a Sevilla, probablemente, desde Madinat al-Zahra, por los soberanos abadies o por los propios almohades. Cuando estos últimos tomaron al-Andalus, se convirtieron en los nuevos señores de un imperio que se sentía heredero del antiguo califato cordobés; que buscaba la autoridad y prestigio de un poder, en cierta medida, restaurado”—in which case where were these antiquities displayed? How can we know they were not in the foundations just for solidity?

³⁵² Domínguez Perela, E., “Los capiteles en al-Andalus durante los siglos VIII–IX,” *Capiteles corintios*, 103–118; see 112 & plate 1 for comparison between capitals on the Giralda and a capital on the Palatine—the modela “corinto classicista.” *Crespi, Gabriele, *L’Europe musulmane*, Milan 1982, 133 for a close-up of the re-used columns.

³⁵³ Suggestion by Rosser-Owen, Mariam, “Andalusi spolia in medieval Morocco: architectural politics, political architecture,” lecture at Royal Asiatic Society, 14 December 2006.

³⁵⁴ Discussion in Cressier, Patrice, & Cantero Sosa, Magdalena, “Diffusion et remploi des chapiteaux omeyyades après la chute du califat de Cordoue. Politique architecturale et architecture politique”, in *L’Afrique du Nord antique et médiévale. Productions et exportations africaines. Actualités archéologiques*, (Paris 1994), 159–187; see 170.

³⁵⁵ *Al-Himyari* 27. According to the same author, 191, Carmona (30km distant) had numerous ancient remains and a stone quarry, its cathedral mosque boasting 7 naves supported on marble columns and stone pilasters.

³⁵⁶ Comez, Rafael, “El Alcázar de Sevilla al fin de la Edad media,” in Boucheron, Patrick, & Chiffolleau, Jacques, eds., *Le palais dans la ville: Espaces urbaines et lieux de la puissance publique dans la méditerranée médiévale*, (Lyon 2004), 313–24.

Granada has the Alhambra with its fresh-quarried marble columns and capitals, and marble and alabaster paving,³⁵⁷ but the later structure (largely 1330s) has obliterated any earlier one. Elements such as the lions might be from an earlier palace, perhaps built by the 11thC Jewish vizier of Granada (hence the Solomonic overtones). The basin they support was probably made at the same time—and quarried fresh for the purpose, and so conceivably was the large one in Marrakech.³⁵⁸ As for the refounding of the Great Mosque of Granada in 1116–7 by Al-Maafiri, which counted 86 marble columns, some from Córdoba were used, although there was certainly marble to be had from the Roman city.³⁵⁹ These might have been amongst the dozen rediscovered during the building of the Gran Via in the 19th century, two of which bore the date 951–2³⁶⁰—slim pickings indeed. This must have been the mosque Abn Fadl (born 1248) saw in the 13th century, when he said it was supported on elegant colonnades.³⁶¹ Andrea Navagero, the Venetian Ambassador (and therefore perhaps especially alert to marble), visited Granada in 1526, and was impressed by the Alhambra, which was “very beautiful and extremely sumptuous in its fine marbles... The marble, however, is not on the walls but on the floor... The court is tiled with extremely fine white marble, some pieces of which are very large... those Moorish kings did not neglect anything that contributed to a pleasant and contented life.”³⁶² Tastes had changed, and both the Mezquita and Alhambra would be prized again only from the 19th century.

³⁵⁷ Cf. Ibn Bagir, “The Palace and the Garden” (of Granada): “paving of alabaster, paving of marble... Chamber doors paneled with ivory like palace doors, reddened with panels of cedar, like the Temple... It has a dome, too, like Solomon’s palanquin... turning, changing, pearl-colored; crystal and marble in day-time;” reprinted in Menocal, Maria Rosa, Scheindlin, Raymond, P., & Sells, Michael, *The literature of al-Andalus*, (Cambridge 2000), 1.

³⁵⁸ Dodds, *Al-Andalus*, cat. 43, ablution basin from the Madrasa Ben Youssef in Marrakech, 71 × 155 × 84cm—the largest surviving, caliphal period, 1002–1007.

³⁵⁹ *Al-Gharnati, Voyage*, 44: “À proximité de la ville, il y avait dix plaques de marbre recouvertes d’une inscription en langue préislamique. Il y était porté les testaments, les exhortations et les discours des prophètes et des rois, ainsi que leurs noms... Près de la cité, se trouvait la statue d’une idole en pierre...”

³⁶⁰ Dickie, James, “Granada: a case study of arab urbanism in Muslim Spain,” in Jayyusi, Salma Khadra, ed., *The legacy of Muslim Spain*, (Leiden 1992), 98.

³⁶¹ Gaudetroy-Demombynes, ed., Abn Fadl Allah al-Omari, I, *L’Afrique, moins l’Egypte*, (Paris 1927), 233–4; built 1116, this was demolished only in the 18thC for the church of the Sagrario.

³⁶² Brothers, Cammy, “The Renaissance reception of the Alhambra: the letters of Andrea Navagero and the Palace of Charles V,” *Muqarnas* XI, 1994, 79–102; see 80–1.

Kairouan, Mahdiya and Tunis

The principal mosques in these three cities in Tunisia are important not only for their inherent originality and qualities, but also because their location at the western end of the Mediterranean meant they were on trading routes frequented by Europeans (Kairouan also had a Christian community). In the region, they offered an exposure to marbled monumentality more easily available than to Damascus, well inland. All three were newly-founded cities, but able to draw materials from ancient ruins nearby.³⁶³ In the case of Tunis (after 697: the Arabs took Carthage in 698) these came from Carthage,³⁶⁴ under five kilometres seaward, where there was a seven-aisled basilica. At Kairouan, thanks to the ruin fields all around, Roman and Byzantine remains are found throughout the city, as well as in the foundations of the Great Mosque.³⁶⁵ Mahdiya, founded as its name suggests by Al-Mahdi, in 910, was a triumphalist new beginning, although Al-Muqaddasi may have exaggerated slightly when he said that anyone wishing to see Constantinople “need only go to Al-Mahdiyya and not take the trouble to journey to the Romaean city.”³⁶⁶ It was still a prosperous port, serving Kairouan, when El-Bekri visited it in about 1060.³⁶⁷ Indeed, because of its port and trade-route location,³⁶⁸ Mahdiya overtook Kairouan in prosperity,—one reason why Pisa sacked it—before it was in its turn overtaken by Tunis.³⁶⁹ But it was only one of various Maghreb ports (necessary for loading heavy items such as marble) which flourished during the later mediaeval centuries.³⁷⁰ Both sites seem to have repaid

³⁶³ Pavón Maldonado, Basilio, *España y Túnez: arte e arqueología islámica*, (Madrid 1996), 103–12 for antique capitals reused in Ifriqiya.

³⁶⁴ Wickham: *Framing*, 641 points out this was the only major city in the Umayyad caliphate that was moved; Ibn Khaldun was born in Tunis on May 27, 1332, and we might surmise that his discussion of the rise and fall of city life may have been triggered by contemplation of the near-dead Carthage and the living Tunis.

³⁶⁵ Talbi, M., in *El Kairouan*; Sakly, Mondher, “Kairouan,” in Garçin, *Grandes villes*, 57–85.

³⁶⁶ Al-Muqaddasi, *Best divisions*, 188.

³⁶⁷ Heyd, *Commerce*, 49.

³⁶⁸ Context in Stuwe, Friedrich, *Die Handelszüge der Araber unter den Abbasiden durch Afrika, Asien und Osteuropa*, (Berlin 1836), 78ff. for African trade by land; 182ff. for Syria etc.; 282ff. for trade by sea.

³⁶⁹ Abulafia, David, “Asia, Africa and the trade of medieval Europe,” in Postan, M.M., & Miller, Edward, eds., *The Cambridge Economic History of Europe, II: Trade and Industry in the Middle Ages*, (Cambridge 1987), 402–73; see 425–6.

³⁷⁰ Picard, Christophe, “L’inventaire des ports et de la navigation du Maghreb d’après les relations des auteurs arabes médiévaux,” *Académie des Inscriptions et Belles-Lettres*,

sightseeing: in the mid-14th century Sultan Abul Hassan went to Kairouan, “round the outskirts of the town, and visited the ancient ruins and the old monuments, and the remains due to the Cenhadja and the Obeidites.” And at Mahdiya “he halted at the sea side and visited the ancient vestiges there, the sight of which revealed to him the end of those of his predecessors who before him had held the greatest power and left the most imposing traces behind them.”³⁷¹ Ibn Khaldun would shortly write in a similar vein.

It is not known what the first mosque at Kairouan looked like.³⁷² El-Bekri (who visited c.1060) says it was built by Oqba ibn Nafe (the general who conquered the Maghreb, d.683), then torn down except for the mihrab and rebuilt, with the two famous red columns brought from an old church.³⁷³ These were “les deux colonnes rouges, tâchetées de jaune, dont la beauté est incomparable”—and supposedly also sought by the Emperor at Constantinople. Indeed, Kairouan appears to have sought out coloured marble,³⁷⁴ and we might wonder whether the upper walls of the courtyard were richly decorated, just like the façade of the Mosque of the Three Doors (866). Another tradition relates that Musa ibn-Nusair (governor of Ifriqiya from 698) used Christian skill and marble bought from Christians to build his refurbishment, and built a fleet of 100 ships at Carthage, even digging out the canal to the arsenal (presumably the circular basin).³⁷⁵ At some period at least fifteen of the columns were “islamicized” by the addition of pious inscriptions, one reading “Mohammed is the Messenger of God.”³⁷⁶ Elsewhere, capitals

February 2003, 227–56; 240: Bougie, with a marble-rich hinterland, was popular in the second half of the 12thC.

³⁷¹ Hamet, Ismael, trans, Ahmed Ben Khaled En-Naciri Es-Slaoui, *Histoire du Maroc*, IV, (Paris 1934), IV, 254.

³⁷² Golvin, Lucien, *Essai sur l'architecture religieuse musulmane*, 3, *L'Architecture religieuse des grands Abbâsides, la mosquée de Ibn Tûlûn, l'architecture religieuse des Aghlabides*, (Paris 1974), 133–50 for the mosque and its alterations.

³⁷³ Sebag, Paul, *La Grande Mosquée de Kairouan*, (Tours 1977), for an excellent photographic survey.

³⁷⁴ Lazzarini, *Pietre e marmi antichi*: Kairouan has in re-use sienite, Egyptian diorite, granito del foro, red porphyry, breccia corallina, cipollino rosso, marmor lesbium,—but apparently no giallo antico (although it was to be found in primary use at nearby Carthago, Tunis and Thuburbo Maius).

³⁷⁵ Amari, *Musulmani di Sicilia*, I.248.

³⁷⁶ Roy, Bernard, & Poinssot, Paule, *Inscriptions arabes de Kairouan*, (Paris 1950), 46–60—plus several written on marble plaques.

could be de-Christianized in a somewhat similar manner,³⁷⁷ and columns in churches in Extremadura were so treated, perhaps because they were at some time used as lock-ups for Arabic prisoners.³⁷⁸

The history of the mosque's construction is difficult to unravel, because it is bound up with stories that are probably conventional—topoi. Thus in 772 Yazid ibn Hatem supposedly pulled down everything except the mihrab. And when Ziadat-Allah ascended to the throne in 817 he destroyed the whole mosque, in spite of protests about its venerability. Because he did not want the new construction to have the least trace of previous work, he even ordered the destruction of Oqba ibn Nafe's mihrab, though it was somehow spared.³⁷⁹ The concern for the mihrab is that it is a miracle of marble panelling, surely the most beautiful to survive anywhere,³⁸⁰ and praised by many travellers. Confusion over the building continues when estimates are made of the number of columns in various of its stages. Presumably the first mosque had marble monoliths re-used in the rebuilding(s). El-Bekri, for example, counted 414 columns formed into 17 naves. However Lézine, in what may be an over-literal reliance on the prayer hall's current dimensions, believes the prayerhall can never have held more than 200 columns, and hence that El-Bekri must have meant the column total for whole mosque. Today the mosque does indeed have 457 columns—that is after the 836AD enlargement—which added nearly a third to the NE side of the prayerhall.³⁸¹ Lambert believes the mosque to have reached a considerable size by AD 725—80m broad for 135m deep including prayer hall and courtyard. He suggests that the prayer hall was deepened again in AD 862, with a broader and higher central nave the typology of which he thinks inspired by Christian basilical design rather than by

³⁷⁷ Cf. Ulu Camii at Manisa, where in one of the three mid-Byzantine capitals the horizontal arm of the cross has been chiselled out: Dennert, Martin, *Mittelbyzantinische Kapitelle. Studien zur Typologie und Chronologie*, (Bonn 1997), cat. 115.

³⁷⁸ Barceló, Carmen, "Columnas "arabizadas" en basílicas y santuarios del occidente de al-Andalus," in Valdés Fernández, Fernando, & Velázquez, A., eds., *La islamición de la Extremadura romana*, (Mérida 2001), 87–137: Milreu (4thC, Estói, near Faro), Almonaster la Real (Huelva: V–VII sec), Basilica de Casa Herrera (Mérida, 6thC); and the "Visigothic basilica" at Mérida.

³⁷⁹ El-Bekri, *Description*, 52ff.

³⁸⁰ Golvin, Lucien, "Le mihrab de Kairouan," *Kunst des Orients* V 1968, 1–38. See also his *Essai sur l'architecture religieuse musulmane*, 3, 223–43.

³⁸¹ Lézine, Alexandre, *Architecture de l'Ifrîqiya: recherches sur les monuments aghlabides*, (Paris 1966), 2, 29–30, 72, fig. 29.

arrangements at Córdoba.³⁸² Conversely, in its use of antiquities, it has been suggested that Kairouan's arched entrance might have influenced Italian campanili.³⁸³ Whether any more columns were added during (General) Al-Mansur's restorations of 1187ff. is unclear.³⁸⁴

Like Córdoba, Kairouan also used more columns than necessary simply for support.³⁸⁵ Many are there for display, and fine columns have been lavished on the prayer hall at the expense of the courtyard flanks, where some are made up of fragments. The eastern courtyard columns stand out as patchworked, because they are mostly part-shafts, thickish rather than classically proportioned, and a few supported on podia (some of which are sections of antique entablature) to make up height. In the prayer hall, five columns are grouped together as if they were pillars,³⁸⁶ and there are twinned columns at its entrance and inside, supporting each arch-springing for the main nave. This "doubling-up" motif is not rare in Islam, being seen in the exterior and interior of the Sayyida Ruqayya Mausoleum, Cairo (1133), with contemporary columns. Equally, in Christendom it appears in the nave of S. Nicola at Bari (1087ff.); and in the Duomo at Trani (1099–1143). At Amalfi they appear in the portico (refurbished 1203), and also in the Chiostro del Paradiso (where the corners are supported on four slender shafts); and what is now the adjacent museum (1266–8). Such doubling appears intended to impress, and sometimes perhaps as a way of employing and displaying columns too slender to use alone.

Much thought has gone into placement of both columns and capitals. Harrazi has catalogued the capitals, and pointed out the care with

³⁸² Lambert, E., "Les grandes mosquées de Kairouan et de Cordoue au temps des Omayyades d'Occident," *Études d'orientalisme dédiées à la mémoire de Lévi-Provençal*, (Paris 1962), 623–29; see 626.

³⁸³ d'Onofrio, Mario, "La cattedrale di Gaeta nel medioevo," *Rivista dell'Istituto Nazionale d'Archeologia e Storia dell'Arte* XIX–XX 1996–7, 227–49; compares the arched base of Gaeta's campanile with the external entry to Kairouan; and also sees connections between Gaeta and Sfax: 247.

³⁸⁴ Huici Miranda, Ambrosio, *Colección de crónicas árabes de la reconquista, II, Ibn Idari Al-Marrakusi: Los Almohades*, I, (Tetuán 1953), 132: "se conmovió al contemplar lo que dejaron de ella los sucesos de los tiempos pasados. Llegó a la ciudad y la examinó y las desgracias habían gastado lo nuevo de ella y habían borrado su esplendor... hasta que llegó a la mezquita mayor de antigua construcción y hermosa obra en todas sus partes. La antigüedad había borrado su fisonomía y los sucesos recientes habían eclipsado su luz y su fulgor. Escribió con urgencia al levante del Andalus para tejer su vestido y apresurarse a enviar sus tapices y sus adornos."

³⁸⁵ dvd_kairouan_columns.doc.

³⁸⁶ Vogt-Göknil, *Frühislamische Bogenwände*, 83 for diagram: the Zeytuna has no groups of more than 4.

which symmetry of colour and form is sought in the prayer hall, rather than the courtyard. The builders have attempted a correspondence and alternation of shaft-types because no complete suites were available.³⁸⁷ The Aghlabite library (to the south of the maqsura) has door jambs cut from two matching baulks of antique frieze, and a lintel from a soffit of different design (if crudely chopped off at the right). All three are decorated with rinceaux, the jambs are very large and heavy, and these have been carefully cut so as to start at the top with a complete rinceau. The effect is very similar to that of the minaret doorway, which also uses antique baulks for its jambs and lintel.³⁸⁸ One of its manuscripts (late 13thC, from Andalucía, on the History of the World), notes that Babylon itself was 64 miles in circumference, and built with bricks and marble, cemented together with bitumen³⁸⁹—so perhaps North Africa believed it was keeping up with Mesopotamia in its use of marble.

In 894 Kairouan, “previously the most important city of the Maghreb,” writes Ibn Hawqal,³⁹⁰ lost its position as capital to Tunis. But the prestige of its mosque remained, thanks to its size and the brilliance of the marble and other antiquities built into it, especially its columns and capitals. The city itself declined, was sacked by the Hillalians in 1057, and was described by one scholar as “a miserable village, a market for nomads, saved from total destruction because of her religious prestige.”³⁹¹ Al-Harawi (d.1215) saw the city in ruins, but “there are in the Great Mosque columns of marble and other antiquities which prove that the town was once more important than Mahdiya or Tunis.”³⁹² In other words, he is using marble as an index of prestige and even longevity. However, so outstanding and famous were Kairouan’s columns that pilfering may have been practised—an echo of what apparently was to happen in churches in 15th-century Rome.³⁹³ Thus we learn of an 11th-century legal decision concerning the caretaker of the mosque, who took a column from a ruined mosque near the Emiral Palace and

³⁸⁷ Harrazi, Noureddine, *Chapiteaux de la grande mosquée de Kairouan*, 2 vols, (Tunis 1982).

³⁸⁸ Djelloul, Néji, *Kairouan: la grande mosquée*, (Sousse 2000), for a well-illustrated overview: I.213–6.

³⁸⁹ Nallino, Maria, ed., Levi della Vida, Giorgio, *Note di storia letteraria arabo-ispanica*, (Rome 1971), 175.

³⁹⁰ Ibn Hawqal, *Configuration*, I.94.

³⁹¹ Planhol, Xavier de, *Les fondements géographiques de l'histoire de l'Islam*, (Paris 1968), 150.

³⁹² Al-Harawi, *Guide*, 121.

³⁹³ Marangoni, *Delle cose gentilesche*, 420–2 for Sixtus IV’s edicts.

put it in the Great Mosque in the place of another column, which he sold, and which was then built into another construction. The judge ruled that the sold (i.e. pilfered) column should be returned to its place, with the face-saving comment that “The overseer of the Great Mosque, is a pious man without being knowledgeable . . . He transported this column there because it was very beautiful, being of the same dimensions as the one which was sold but surpassing it in beauty.”³⁹⁴ The assumption might be either that the mosque was ruinous by this date, or alternatively that it was easy to extract just one shaft from the doubled-up clusters. Unfortunately, as Kairouan has expanded, many of its ruins have vanished over the past century or so as people have dug for building materials. A French soldier noted the old marble in the courtyard paving (since largely replaced?) in 1882.³⁹⁵

Where did the antiquities for Kairouan come from? Kairouan was founded in 670,³⁹⁶ in a region littered with Roman sites, especially on the coast. Al-Ya’qubi, who visited the vast region south of Kairouan in 893, wrote of an area filled with towns and fortresses, but now half-desert—and hence lands abandoned by humans, so with materials for the taking.³⁹⁷ One of these, Raqqada, was settled after Kairouan, and filled with the princely villas of the Aghlabites, wrote Ibn Hawqal in 977.³⁹⁸ These probably supplied some building material. But there were certainly plenty of local sites to loot, and perhaps sufficient for the columns re-used in the tower/minaret of the nearby Sabra mosque. This city (or rather palace settlement), had monuments, and especially a palace and mosque, which charmed the Islamic sources.³⁹⁹ The site is in course of excavation,⁴⁰⁰ for it was rich in ruins even before the

³⁹⁴ Lagadère, Vincent, *Histoire et société en occident musulman au moyen âge: analyse du Mi’yard’ al-Wansarisi*, (Madrid 1995), 215–6 Kairouan: judgment of al-Suyuri (d.1067).

³⁹⁵ De Lonlay, Dick, *En Tunisie: Souvenirs de sept mois de campagne*, (Paris 1882), 315: “De larges dalles en marbre blanc et noir, couvertes d’inscriptions en lettres latines et provenant de tombeaux et de temples romains, recouvrent le sol.”

³⁹⁶ Amari, *Musulmani di Sicilia*, I.252ff.

³⁹⁷ Hopkins, J., “Sousse et la Tunisie médiévale vues par les géographes arabes,” *Cahiers de Tunis* 8 1960, 83–96: see 85ff.

³⁹⁸ Ibn Hawqal, *Configuration*, I, 94.

³⁹⁹ Mahfoudh, Faouzi, “Qasr al-Ma, al-Abbasiya et al-Qadim: à propos de quelques agglomérations près de Kairouan,” *Académie des Inscriptions et Belles-Lettres*, February 2003, 211–225; see 212. Idris, H.R., *La Berberie orientale sous les Zīrides, X^e–XII^e siècles*, 2 vols (Paris 1962) II.425ff. for Sabra-al-Mansuriyya.

⁴⁰⁰ http://webtv.univ-lyon2.fr/article.php3?id_article=440, with a short summary at <http://ciham.ish-lyon.cnrs.fr/>.

Islamic settlement was built there by Ismail in 948–9. Its full name was Sabra-Al-Mansuriyya, and it was the Fatimid capital 949–72,⁴⁰¹ and another round city.⁴⁰²

But it seems likely that such a large number of column-shafts for the Great Mosque, let alone the 525 re-used capitals, are from further afield, including all along the coast,⁴⁰³ especially since the capitals date from the first century AD to the Byzantine period.⁴⁰⁴ It has been suggested, with comparanda from Constantinople, Ravenna, Venice and Parenzo, that not only Tunisian sites (such as Hadrumetum, Sufetula, and Djaloula) were plundered, but that materials were also bought or requisitioned from abroad.⁴⁰⁵ Given the large quantities of Roman remains in this country, such imports can only have been for reasons of prestige, not necessity—an echo, as it were, of Herod's import of fine marbles to Caesarea, when the local limestone might have been used. Indeed, given the cadences with which the mosque was built and then subsequently enlarged, material might have been acquired in more than one search campaign.

If Kairouan has a double-columned entrance to the prayer hall, Mahdiya is the first mosque with a monumental external entrance, which can certainly be connected (along with its marble) with Roman triumphal arch designs. Similarly the arch-over-lintel setup, already seen in the Forum of Caesar, and the gates at Spalato, and taken up in Kairouan as well as Mahdiya, is connected by Pavón Maldonado with the arched entrances to the Mezquita at Córdoba, which he sees as intended to form a setting for ceremonies.⁴⁰⁶ Partly perhaps because of the triumphal gateway, and partly because of its position in an important port, this mosque was very influential,⁴⁰⁷ but little remains of

⁴⁰¹ Bloom, Jonathan M., "The origins of Fatimid art," *Muqarnas* 3 1985 20–38; see 29ff.

⁴⁰² *Sayyid, Ayman Fu'ād, *La capitale de l'Égypte jusqu'à l'époque fatimide Al-Qahira et Al-Fustat: essai de reconstitution topographique*, (Stuttgart 1998), 94ff. for Mahdiya, 103ff. for Sabra-Mansuriyya.

⁴⁰³ Djelloul, *Kairouan*, 212.

⁴⁰⁴ Harrazi, *Chapiteaux*, passim.

⁴⁰⁵ Marçais, G., *Manuel de l'art musulman. L'architecture, Tunisie, etc.*, (Paris 1926), 13–15.

⁴⁰⁶ Pavón Maldonado, Basilio, "Las puertas de ingreso directo en la arquitectura hispanomusulmana. La superposición arco-dintel de la Puerta de Bisagra de Toledo," *Al-Qantara* 8.1/2 1987, 347–94.

⁴⁰⁷ Mahfoudh, Faouzi, "La grande mosquée de Mahdiya et son influence sur l'architecture médiévale ifriqiyenne," in Barrucand, Marianne, ed., *L'Égypte fatimide: son art et son histoire*, (Paris 1999), 127–1401.

its original decorations—not surprisingly, given its tempting waterfront position.

Just as the Kairouan mosque probably used some materials from the vicinity, so the Zaytuna Mosque at Tunis (first built in 732, and remodeled in the middle of the following century) took materials from adjacent Carthage. But apparently these did not suffice to give the range and quality of marbles—and hence the prestige—the builders required. They did not look south, into the desert (where at Urbs Citta Leo Africanus found marble statues and inscriptions centuries later)⁴⁰⁸ but toward the sea, across which transport would be easier. Since Carthage was to be a source of marble for centuries to come, we must assume discrimination—although Kairouan might already have taken the very best visible columns from Carthage and the North African coast, of course.⁴⁰⁹ Nevertheless, no doubt Carthage yielded construction blocks, which also provided door jambs and lintels for the extensive use of marble and columns in the houses of Tunis.⁴¹⁰ El-Bekri noted that at Tunis “The doorways of all the houses are framed in beautiful marble, each monolithic, with a third on top to form a lintel.”⁴¹¹ This use of Carthage for structural materials is tentatively borne out by the use of frieze blocks downturned as paving slabs in the mosque.⁴¹² Carthage does not appear to have been settled by Moslems before the 10th century, although Christian churches were still active there in the 6th. The glories of Tunis and Carthage would have been well known in the West through trade, and they were no doubt often detailed. Constantinus Africanus (c.1010–1087), from Tunis, ended up as a monk at Montecassino.⁴¹³

⁴⁰⁸ “Where there are many ancient remains of the Romans, such as statues of marble, plaque of marble over doorways with latin letters incised, and many walls of large worked stones.” cf. Zhiri, O., *L'Afrique au miroir de l'Europe: fortunes de Jean Léon l'Africain à la renaissance*, (Geneva 1991), for the background to his account.

⁴⁰⁹ Harrazi, *Chapiteaux*, 212.

⁴¹⁰ Révaut, Jacques, *L'habitation tunisoise: pierre, marbre et fer dans la construction et le décor*, (Paris 1978), 26ff. for Roman and Byzantine construction techniques; 145ff. for columns; 91ff., 157ff. for marble use.

⁴¹¹ El-Bekri, *Description*, 87. Vitelli, *Islamic Carthage*, 45ff.; pl. 4: for the reuse of impressive 2nd/3rd AD architectural fragments, Suq de la Laine, Tunis.

⁴¹² Ferchiou, N., “Rinceaux antiques réemployés dans la Grande Mosquée de Tunis: parenté de leur style avec celui de certains monuments de Carthage,” *Antiquités Africaines* 17 1981, 143–63.

⁴¹³ Bloch, Herbert, *Monte Cassino in the Middle Ages*, (Cambridge, Mass. 1986), 99ff.

Important structures were also built further inland. Abd Ar-Rahman II sent funds to expand the Qarawiyyin Mosque in Fez, and capitals there have been compared by Terrasse with examples in Spain, and also with fine capitals found in excavations of the Palace of Ali ibn-Yusuf at Marrakech.⁴¹⁴ He believes that it is under Abd Ar-Rahman II that the Moslems started sculpting acanthus capitals (having previously collected old ones where possible), and these are to be seen at both Fez and Marrakech—"a deliberate reworking of ancient materials in new works."⁴¹⁵ We might also wish to believe that the mosque at Testour (a Tunisian town founded by Andalusian immigrants in 1609 on the ruins of the Roman Tichilla), which has 48 old columns (some of them very large) in the prayer hall and another 20 in the courtyard, continues local traditions in the use of antiquities first seen at Kairouan.⁴¹⁶

Baghdad and Samarra

Baghdad was a new city, founded in 762, with an area of some 285 hectares—the famous round city, of which nothing survives. Al-Mansur, a great builder,⁴¹⁷ supposedly imported Byzantine marble workers,⁴¹⁸ so presumably also marble for them to work. The Bab Al-Dahab palace was of stone and marble, its gate gilded; the Palace of Khan Al-Khail had marble pillars, as did the Palace of Mu'tadid (10 of them); and the bridge of Bani Zuraiq was entirely of marble.⁴¹⁹ For such structures Al-Mansur must have sought materials far and wide. Al-Tabari relates⁴²⁰ that he started to demolish the "white palace" of Chosroes in

⁴¹⁴ Terrasse, Henri, "Chapiteaux oméïyades d'Espagne à la mosquée d'al-Qarawiyyin de Fès," *Al-Andalus* 28.1, 1963, 211–16 & plate 3; *ibid.*, *La Mosquée al-Qarawiyyin à Fès, avec une étude de G. Deverdun sur les inscriptions historiques de la mosquée*, (Paris 1968), 42 & plates 82–6 for the old capitals used in the adjacent Mosquée des Morts.

⁴¹⁵ Terrasse, Henri, "La reviviscence de l'acanthé dans l'art hispano-mauresque sous les almoravides," *Al-Andalus*, 26.2, 1961, 426–35; see 426–8; quote from 428.

⁴¹⁶ Binous, Jamila, et al., *Ifriqiya. Treize siècles d'art et d'architecture en Tunisie*, (Tunis 2000), 112, 132–3.

⁴¹⁷ Al-Baladhuri, *Origins*, 56: at al-Massisah in 756 he repopulated the earthquake-destroyed city, built walls, called it al-Ma'murah, and "erected a congregational mosque in it on the site of a heathen temple, and made it many times the size of the mosque of Umar. Al-Ma'mun enlarged the mosque."

⁴¹⁸ Cutler, "Gifts and gift exchange," 255.

⁴¹⁹ *Al-'Amid, Tahir Muzaffar, *The Abbasid architecture of Samarra in the reign of both al-Mu'tasim and al-Mutawakkil*, (Baghdad 1973), 175.

⁴²⁰ Al-Tabari XXIX: 4–5 for 763–4.

order to re-use the materials, but found it difficult and expensive. He therefore ordained a new structure, with instructions that “If you build me a building, make it impossible to demolish so that its remains and traces may last”—an about-turn noticed elsewhere by Islamic writers interested in hubris. He also claimed the bricks of the “white palace” were Muslim booty, and hence fined those who had pilfered them.⁴²¹ Unusually in this region, the materials Al-Mansur used were intended to help his bid for palatial longevity. Indeed Yakut, writing about the year 1000, declares that “Baghdad was a veritable city of palaces, not made of stucco and mortar, but of marble. Both sides of the river were for miles fronted by the palaces, kiosks, gardens and parks of the grandees and nobles, marble steps led down to the water’s edge.”⁴²² So did the marble-workers in fact come from Byzantium? Possibly, but the only specific account we have from the 9th century says Iraq imported them from China, by which might be meant China-wards, namely Afghanistan or India.⁴²³ In any case, surely Iraq had her own home-grown marble workers well before the Millennium, given the requirements of the palaces of Baghdad and Samarra.

Samarra⁴²⁴ was much bigger (though far less populated) than Baghdad, at 378 hectares, or some 57 square kilometres. It is of an extent to be appreciated only in tiled aerial photographs, and in comparison with contemporary developments in Europe.⁴²⁵ Plenty of digging remains to be done there.⁴²⁶ It is “undoubtedly the most spectacular and magnificently planned city in antiquity,”⁴²⁷ and boasts the two largest mediaeval mosques (38,000sq.m and 28,750sq.m). Both were quickly built and abandoned. But it took 200 years to make of Córdoba the third-largest of all mosques at 22,250sq.m. To this taste for gigantism was allied that for separating the town from the palace, seen

⁴²¹ Al-Tabari XXIX.86 for 772–3.

⁴²² On the web at <http://www.fordham.edu/halsall/source/1000baghdad.html>.

⁴²³ Lopez, Robert Sabatino, *Medieval trade in the Mediterranean world: illustrative documents*, (New York 1955), 28: document mid 9thC, imports to Iraq: “From China... hydraulic engineers, expert agronomists, marble workers.” Al-Ya’qubi mentions marble workers, who were also expert in marble paving, but not their source.

⁴²⁴ Northedge, Alastair, “Archaeology and Islam,” 1088ff. for an overview.

⁴²⁵ Hodge, Richard & Whitehouse, David, *Mohammed, Charlemagne and the origins of Europe*, (London 1983), *passim*.

⁴²⁶ The Samarra Archaeological Survey: <http://www.dur.ac.uk/derek.kennet/samarra.htm>.

⁴²⁷ Al-Janabi, Tariq, “Islamic archaeology in Iraq: recent excavations at Samarra,” *World Archaeology* 14.3 Feb 1983, 305–27; see 305.

also at Cairo and Baghdad.⁴²⁸ The level of palace-building was high. Thus in 847 the Caliph Al-Mutawakkil built a mosque near Samarra at Ha'ir, "and lavished enormous sums of money on it."⁴²⁹ This seems to be different from the mosque he built at Al-Mutawakkiliyah, where he also built a congregational mosque which supposedly had marble columns in its prayer hall⁴³⁰—the whole city being built and occupied within "only a few months."⁴³¹ Again, he supposedly built 23 palaces and spent over 200 million dirhams in all on his buildings,⁴³² of which the Dar Al-Khalifa has been closely studied, and whence marble has been retrieved.⁴³³ Murdered in 861, he was succeeded by Al-Muntasir, who ordered all the buildings pulled down.

We know little of the city from the standing remains, because it has been comprehensively plundered, and all the marble has long since been stripped out. But it was furnished on an heroic scale. The rich decoration of Samarra is known from some excavated objects, and fragments of wall fresco, stucco, mosaic marble, glass and mother-of-pearl decoration are displayed in London, Istanbul and Berlin. The city was also the subject of substantial and admiring narrative accounts. For example, Al-Yaq'ubi writes of Al-Mu'tasim's orders as follows: "He wrote for the despatch of the workmen, builders and skilled people...and for the bringing of worked marble, and slabs of marble."⁴³⁴ In what is probably an ekphrasis, rather than factual description, Shabushti describes a throne room in Samarra (which he cannot have seen because he was writing a century and a half after 870): "The walls of the palace were covered inside and outside with mosaic and gilded marble."⁴³⁵ As for

⁴²⁸ Guichard, Pierre, "Du Qasr urbain a la Madina palatine," in Patrick Boucheron & Jacques Chiffolleau, eds., *Le palais dans la ville: espaces urbains et lieux de la puissance publique dans la méditerranée médiévale*, (Lyon 2004), 39–56; see 46–8, 51ff.

⁴²⁹ Miah, M. Samsuddin, *The reign of al-Mutawakkil*, (Aco 1969), 45–6 for the huge costs of his new city.

⁴³⁰ Wijdan, Ali, *The Arab contribution to Islamic Art: from the seventh to the fifteenth centuries*, (Cairo 2000), 60 the Great Mosque at Samarra. It also had a marble floor, and "used to be considered superior to the mosque at Damascus": cf. Al-Muqaddasi, *Best divisions*, 102. It also had extensive mosaics, perhaps echoing Damascus.

⁴³¹ Al-Baladhuri, *Origins*, 461.

⁴³² Kennedy, Hugh, *When Baghdad ruled the Muslim world: the rise and fall of Islam's greatest dynasty*, (Cambridge, MA 2005), 148f.

⁴³³ Northedge, Alastair, "An interpretation of the palace of the Caliph at Samarra (Dar Al-Khalifa or Jawsaq Al-Khaqani)," *Ars Orientalis* 23 1993, 143–70; with plenty of plans etc.

⁴³⁴ Northedge, *The historical topography of Samarra*, 268.

⁴³⁵ Kennedy, *When Baghdad ruled the Muslim world*, 147.

the Great Mosque, this “used to be considered superior to the mosque at Damascus. Its walls had been coated with enamel, pillars of marble erected within it, and it was paved with marble.”⁴³⁶ One of the marvels of the city was the ablution basin in the Great Mosque (probably of marble), “formed of one block of stone, this basin measuring 23 ells [over 26m] in circumference, with a height of 7 ells [8m], and it was half an ell [57cm] in thickness. This basin was known as Pharaoh’s Cup; and in all the country round for more than thirty leagues distant, there is no such block of stone found.”⁴³⁷ We are told that “the bowl and the stones that are in the fountain” (presumably for some kind of canopy) were dragged to the mosque by three elephants, and that the basin later found its way to the Dar Al-Khalifa Palace.⁴³⁸ The much smaller marble basin in the Victoria & Albert Museum (from Hama, 1278) gives some idea of what this might have looked like.

Conclusion

Islamic architecture is an exciting field, not just because of the magnificence of its buildings, others of which will be discussed in a later chapter, but because so much remains to be learned *via* archaeology at sites such as Samarra, Anjar, and in various parts of North Africa. For what we know from the standing monuments and narrative accounts could surely be filled out by much more excavation. This chapter has demonstrated that in her earlier centuries Islam built large and ambitious monuments from old marble—bigger than Western Christendom was to attempt until after the Millennium. The snobbery of marble also translates effortlessly to the West, for we shall see that, just as several Moslem constructions make a point of importing marble when local supplies could well have sufficed, so Pisa, Genoa and Venice also import from far afield under similar circumstances. Many of the wonders of the Islamic world were well known both in Byzantium and the West through traders and diplomats, as well as ordinary travellers, and the

⁴³⁶ Al-Muqaddasi, *Best divisions*, 102. *Al-ʿAmid, *Abbasid architecture of Samarra*, 156–93: he states that the columns were of coloured marble, and only a few of granite—and with a height of 10.35 to the ceiling beams, a double cubit (1.035m) each for capital and base.

⁴³⁷ Le Strange, G., *The geographical part of the Nuzhat-al-Qulub, composed by Mustawfi in 1340*, (Cambridge 1919), chap. 5.

⁴³⁸ Northedge, *The historical topography of Samarra*, 123, 301.

next chapter will address the question of whether the Carolingian interest in marble stems in part from Moslem example.

Why did the earlier centuries of Islam re-use and quarry marble? Undoubtedly because of the beauty of this God-made material, in which patterns of the natural world, as it were the very hand of God, could be seen. There is no evidence that they partook of any sort of classical tradition, of any devoted imitation of the Romans. However, it is possible to read into the time, effort and expense that went into building mosques a permanent thread of triumphalism. There are no examples of pulling down a large mosque to erect a smaller one, and plenty of evidence of the desire to stamp one's name or that of one's dynasty on such prestigious structures. After all, as Ibn Khaldun was to write, monuments are proportionate to the power of the dynasty. But alongside this monumentalism in religious architecture is a tendency to build palaces shoddily but furnish them magnificently—and then on a whim to build somewhere else, and transfer the fittings, wood, marble, mosaics and all, to the new structure. Once again it is Ibn Khaldun who points out the consequence of such decamping from structure to structure. The walls get decorated with ever-smaller pieces of marble, in diverse patterns also to be seen in stucco and wood, to produce the lavish and startlingly rich entrance portals and interior decoration that we shall see in the chapter on Egypt, Later Syria and Ottoman Turkey.

CHAPTER EIGHT

KING, POPE, EMIR AND CALIPH: EUROPE AND THE ISLAMIC BUILDING BOOM

Introduction

This chapter speculates that the building activities of Charlemagne (King of the Franks, 768–800, then Emperor of the Romans), Pope Hadrian (772–95), Abd ar-Rahman I (Emir of Córdoba 756–88) and Harun Al-Rashid (Abbasid Caliph, 786–809) are linked, with the Christians emulating Islamic projects in materials if not in scale or in typology. This will help demonstrate a theme of this book, namely that it is inclination rather than availability of materials that governs building with antiquities, including marble. Why introduce Moslems into the usual Hadrian-Charlemagne axis? Because to do so, by examining ambassadorial and cultural exchanges, will help widen the context of 8th century building in the West away from Early Christian revivalism laced with antiquarianism and onto a platform of political rivalry that is inherently more likely. After all, this is an age when Christianity found rivals bracketing them first in the east (Caliph Al-Mansur with his round city of Baghdad, 762–7, to be followed by Harun Al-Rashid) and then in the west (Abd ar-Rahman in Córdoba). Hadrian knew about luxury from Byzantium and Islam, was much engaged politically in southern Italy and (Muslim) Sicily,¹ and it has been estimated he made presents to churches of some 3000 square metres of silk in one seven-year period.² Much of this surely came from Islam, rather than from Byzantium, for there were fewer restrictions on the export of such luxuries.³ In any case, the Muslims took over some of the Byzantine

¹ Amari, *Musulmani di Sicilia*, I.310–14.

² McCormick, Michael, “New light on the ‘dark ages:’ how the slave trade fuelled the Carolingian economy,” *Past and Present* 177 2002, 17–54, and notes 42–5.

³ Lombard, Maurice, *Espaces et réseaux du haut moyen âge*, (Paris 1972), 36 for ‘Abd al-Malik and silk.

production capacity,⁴ and were as adept as the Byzantines in integrating its use into court life and ceremonial.⁵

Hadrian was an energetic builder (albeit with Frankish funds),⁶ as was Charlemagne; but the Abbasids were far greater, for they built bigger, and were better engineers.⁷ Al-Muqaddasi even avers that the Umayyad Mosque could be flooded and then drained for cleaning purposes.⁸ Al-Mansur founded a new city, and Abd Ar-Rahman so extended Córdoba that little remains even of its Roman grid (although recent excavations have revealed something of that city's splendour). Politically, for Charlemagne Baghdad could be a useful but dangerous wedge against the Byzantines. Harun Al-Rashid had marched across Anatolia to the Sea of Marmara in 782, before he became Caliph, killing over 50,000 Byzantines, and exacting tribute and a treaty.⁹ This was the latest of a line of Moslem attempts on the City.¹⁰ The cultural and political arguments for such an alliance are supported by an economic one, since they go together as the engine for architectural expansionism. Parallel and successive activities do not necessarily entail emulation, and documentation is lacking; but so much activity in the same period of vigorous ambassadorial exchanges across different parts of the Mediterranean is surely more than a coincidence,¹¹ especially

⁴ From the 7th century: cf. Jacoby, David, "Silk economics and cross-cultural interaction: Byzantium, the Muslim world, and the Christian West," *DOP* 58 2004, 197–240; see 199.

⁵ Lombard, Maurice, *Les textiles dans le monde musulman, VII^e–XII^e siècles*, (Paris 1978), 91ff., 190ff. For European courts, see Hen, Yitzhak, *Roman barbarians: the royal court and culture in the early medieval West*, (Palgrave, London and New York, scheduled for November 2007).

⁶ Bauer, Franz Alto, "Il rinnovamento di Roma sotto Adriano I alla luce del Liber Pontificalis. Immagine e realtà," in *Geertman, Herman, ed., *Atti del colloquio internazionale il "Liber pontificalis" e la storia materiale*, (Rome 2003), 189–203. Ibid. in *Paderborn 1999*, Beiträge 514–28, "Die Bau- und Stiftungspolitik der Päpste Hadrian I (772–795) und Leo III (795–816)." *Herbers, Klaus, *Die Stadt Rom und die Päpste von der Späntike bis zum 9. Jahrhundert*; in *ibid.*, 594–606.

⁷ Charlemagne certainly planned a Rhine-Main-Danube canal—but not much later Al-Mutawakkil (847–61) had canal construction and maintenance as part of the tax bill, and dug canals for drinking water: cf. Shamsuddin Miah, M., *The reign of Al-Mutawakkil*, (Dacca 1969), 161; and Tabari XXXIV.155.

⁸ Al-Muqaddasi, *Best divisions*, 136.

⁹ Al-Tabari XXIX.221. There were raids and punitive measures in 803: Al-Tabari XXX.238ff.

¹⁰ Cahen, Claude, "Les expéditions des Arabes contre Constantinople dans l'histoire et dans la légende," *Journal Asiatique* CCVIII 1926, 61–121 for the context.

¹¹ Renzi Rizzo, Catia, "I rapporti diplomatici fra il re Ugo di Provenza e il califfo 'Abd al-Raman III: fonti cristiani e fonti arabe a confronto," in Berti, Graziella, et al.,

given the architectural and artistic contributions of Islamic princely courts.¹² And as Wickham puts it, the great trade cycle was not centred in Europe, but “had at its core the great cities of the Arab world, such as Cairo and Damascus.”¹³

Building with marble before Charlemagne

Rome and Constantinople represent the gold standard for spoliation in the Middle Ages. Any ruler who had contact with these cities—and Rome was a focus¹⁴—could see how in Rome the ruined monuments, often inscribed, made some kind of statement about the rulers who erected them and were complemented or indeed replaced by elaborate churches reusing their materials. And how, in Constantinople, the ruins were still inhabited (as the legendary American teenager remarked on visiting Oxford) and also augmented by new marble-rich structures, not necessarily all of re-used materials. The churches of Rome made a great impact on visitors, Christian and Moslem alike, and this is underlined by the admiring exaggerations of Ibn Al-Faqih (d.903) and Yakut (d.1229). The former maintains that there are 24,000 churches in Rome with roofs, columns and windows of white marble. The latter describes S. Giovanni in Laterano as having 1200 columns of variegated marble, 50 braccia [29.75m!] high, and the same of gilded brass, disposed in 1000 aisles (each one 428 braccia long and 40 wide—254.6 × 22.6m) with 440 marble columns of various colours and 400 arcades each borne on 20 columns. The presbyterium has 1440 columns 60 braccia high [35.7m]. Such structures were worthy of admiration, for they were truly mirabilia.¹⁵ Extensive papal use of porphyry, including the

eds., *Il mare, la terra, il ferro. Ricerche su Pisa medievale (secoli VII–XIII)*, (Pisa 2004), 247–77; see 273–7.

¹² Overview in Grabar, *L'art de la fin de l'antiquité*, 121–44, especially 134–6 (written with O. Grabar).

¹³ Wickham, Chris, “The Mediterranean around 800: on the brink of the second trade cycle,” *DOP* 58 2004, 161–74; see 164.

¹⁴ Tellenbach, Gerd, “Kaiser Rom und Renovatio: ein Beitrag zu einem grossen Thema,” in Kamp, Norbert, & Wollasch, Joachim, eds., *Tradition als historische Kraft: Interdisziplinäre Forschungen zur Geschichte des früheren Mittelalters*, (Berlin 1982), 231–53; 241ff. for Rome as the Seat of Empire, and 249ff. for tables charting the presence of Otto I right through to Friedrich III (1452) in Italy and specifically in Rome.

¹⁵ For Al-Himyari the columns and pilasters in St Peter's come from Jerusalem, and are of extreme beauty and perfection. Cf. Lewis, Bernard, “The Muslim discovery of Europe,” *BSOAS* 1957, 409–16; see 411–13.

shifting of some large columns, is documented for the 9th century and surely happened in the previous century as well.¹⁶

Our knowledge of both churches and their decoration before the Carolingian period relies necessarily on works such as the *Liber Pontificalis*, other sources not usually being explicit about what got deeded to churches. Indeed, this is what distinguishes the LP from the majority of legal documents, and provides its siren-like attractiveness. The gifts were certainly rich,¹⁷ although the LP accounts may well be exaggerated, perhaps with bullion benefactions melted down and hence recirculating elsewhere within the Church. Brown is in no doubt that “often, indeed, within sight of deserted Roman buildings, kings and aristocrats . . . would pile gold, silks and precious objects . . . on the altars of small but exquisitely built and ornamented churches.” Many of these have disappeared under later and larger constructions on the same site, although further south S. Salvatore at Brescia is a splendid survival, with impressive monoliths, capitals and church furniture. But generally, although we can still admire the splendid ruins of large basilicas all around the Mediterranean, “the majesty of northern Christianity in the early medieval period is strangely muted. Its buildings paid the price of being, indeed, ‘directly ancestral.’”¹⁸

We know that churches were re-furbished with old marble,¹⁹ not least because architecture, both as a suitable series of forms and as a setting for ceremonial, is the first, most expensive and grandest charge on those rulers who wish to distinguish their reign or dynasty and, in the West, to stand comparison with the ancients.²⁰ But we have little solid data about the other element in any such equation, namely palaces, although we can assume that splendid structures were built. The potency of build-

¹⁶ Blaauw, Sible de, “Papst und Purpur. Porphyry in frühen Kirchengestaltungen in Rom,” *Tesserae. Festschrift für Josef Engemann* (Jahrbuch für Antike und Christentum, Erg.-Bd. 18), (Münster 1991), 36–50; see 39ff.

¹⁷ Christie, Neil, “Charlemagne and the renewal of Rome,” in Story, Joanna, *Charlemagne: empire and society*, (Manchester 2005), 167–82; see 171 for a countup of the LP benefactions, which yields 5,323 textiles, 4,480lb of gold and 45,867lb of silver; with Hadrian and Leo donating 68% of the gold; Leo alone donates 48% of the silver; and these two account for 56% of the projects listed—147 out of 263.

¹⁸ Brown, Peter, *The rise of Western Christendom: triumph and diversity, A.D. 200–1000*, 2nd ed., (Oxford 2003), 30, 32.

¹⁹ Effenberger, Arne, “Die Wiederverwendung roemischer, spaetantiker und byzantinischer Kunstwerke in der Karolingerzeit,” *Paderborn 1999*, Beiträge 643–61.

²⁰ Meier, Hans-Rudolf, “Christian emperors and the legacy of imperial art,” *Acta ad archaeologiam et artium historiam pertinentia* 15 2001, 63–75.

ing turned the Longobards, for example, from wandering warriors into settled citizens, and produced a series of structures (such as S. Sofia, Benevento; the “Palace of Theoderic” in Ravenna; or S. Salvatore, Brescia) no less antiquarian than those to be built by Charlemagne himself—and also from old marbles.²¹ In Islam Roman structures certainly impressed, but the Sassanians and Byzantium provided another measuring-stick for size and luxury. So just as we have no full history of Italian antiquarian studies in the period before the Renaissance,²² so are we badly informed not only about many of the details of Western ceremonials in the earlier Middle Ages, but also about their setting, namely the very appearance of the palaces themselves. Much evidence from Ravenna and Rome, and hints about Cortesolona (which would have formed points of reference with which to locate Charlemagne), are either difficult to interpret, missing, or otherwise contentious.²³ Agnellus, for example, writing in the mid-9th century, instances two episcopal palaces in Ravenna (one from the time of Theoderic, who also built one in Verona; and the other Arian), demolished by Bishop Valerius a quarter-century before,²⁴ hence presumably visible up to then, but we have no information at all about them. For Italy, the evidence suggests several centuries of crisis and a slow climb upwards with the recovery of transport and trade in luxurious materials, including spices from Egypt and Syria in Merovingian and Carolingian times,²⁵ but few luxurious palaces.²⁶ So since archaeology has revealed little about the fittings, we are usually thrown back on documents which reveal the richness of some structures, adorned with marble, mosaic and textiles. One such is Saint Gall, which according to an inscription had marble columns in the Carolingian period,²⁷ or Lorsch, which was furnished

²¹ Verzone, P., *From Theoderic to Charlemagne. A history of the Dark Ages in the West*, (London 1968).

²² Weiss, R., “Lineamenti per una storia degli studi antiquari in Italia,” *Rinascimento* IX.2 1958, 141–201.

²³ Bougard, François, “Les palais royaux et impériaux de l’Italie carolingienne et ottonienne,” in Renoux, A., ed., *Palais royaux et princiers au Moyen Âge*, (Le Mans 1996), 181–196; and cf. A.M. Romanini, “Scultura nella ‘Langobardia Maior’: questioni storiografiche,” *Arte medievale* 5 1991, 1–30.

²⁴ Agnellus, *Pontiffs*, 70.

²⁵ Heyd, *Commerce*, I, 88f. McCormick, “New light,” *passim*.

²⁶ Wickham, Chris, “Early medieval archaeology in Italy: the last twenty years,” *Archeologia Medievale* 26, 1999, 9–20; see 19; Wickham, *Framing*, 602ff. where the very title “Where did post-Roman aristocrats live?” encapsulates the problem.

²⁷ Schlosser, *Schriftquellen*, cat. 448.

with marble by 785, and even acquired a porphyry tomb.²⁸ We know more about Islam, because there are more descriptions, and more sites have survived without being built over.

Secular rulers and the Papacy owned land, and sometimes adopted a Theoderic-like proprietorial stance to the building stock. They were the ones with the information and funds to locate, re-locate and re-build with marble because of their ownership of land, and their ability to call upon manpower and transport by land, river, canal and sea. Not all rulers had the desire to do so, but those who did in the Middle Ages were well aware of the ancient Roman comparisons, as well as of practice in Byzantium. Suetonius wrote (Augustus, 72) that for 40 years Augustus himself lived on the “Palatine Hill, where he resided in a small house belonging to Hortensius, in no way remarkable either for size or for ornament; the piazzas being but small, the pillars of Alban stone, and the rooms without any thing of marble, or fine paving.” Such modesty was outside the norm, which was the point of mentioning it; for Romans had been entranced by marble and luxury since the late Republic, as we have seen. Marble halls seem to have been *de rigueur*, but not necessarily easy to live with. Of his time in Constantinople, Liutprand of Cremona complained of the lodgings—a building “ornate with varying marble,” and very draughty, with marble floors and stone for a pillow, a house which “kept off neither heat, nor showers, nor cold.”²⁹ Marble had its downside in the West as well, where much later the health of Abbot Suger’s monks was undermined “by the coldness of the marble and copper.” But he did not get rid of the marble, simply enlarging and heightening the choir instead.³⁰ He also extended the nave, and contemplated importing columns to make it echo the nave of Dagobert,³¹ although he experienced insurmountable difficulties with meeting his needs.³²

The rulers of the Asturias make an appearance here, because in that part of Northern Spain churches and palaces have indeed survived

²⁸ Ibid., cats 232, 175, 179.

²⁹ Report of his Mission to Constantinople, in <http://www.fordham.edu/halsall/source/liutprand1.html>.

³⁰ <http://www.fordham.edu/halsall/source/sugar.html>: XXXIV.

³¹ Raguin, Virginia C., Draper, Peter, & Brush, Kathryn, eds., *Artistic Integration in Gothic Buildings*, (Toronto 1995), 103 note 22.

³² Binding, Guenther, “Beiträge zum Architektur-verständnis bei Abt Suger von Saint-Denis,” in Binding, Guenther, & Speer, Andreas, *Mittelalterliches Künstlerleben nach Quellen des 11. bis 13. Jahrhunderts*, (Stuttgart 1994), 184–207, especially 194–200, with various comparanda.

(more are described, but have long gone) which make it clear that the horizons of Alfonso I, Silo, Alfonso II and Ramiro I (ruling between 739 and 842) included not just the use of old marble (and in very restricted quantities if we judge from the area today), but the emulation of styles from the eastern Mediterranean.³³ It is very likely that in marble use they were also competing with Moslem structures further south. Much of the interior decoration from survivals has disappeared, but sufficient remains to make clear its quality and extent. Alfonso II (791–842), in making his capital in Oviedo and endowing it with splendid buildings, demonstrates that Charlemagne is not the only exponent of splendid architecture in contemporary Christendom.

Charlemagne and marble use

Abandoning the question of just how sumptuous such earlier northern churches actually were (as we must: hard evidence is scarce), we now turn to the first Western ruler (after the Langobards and the Asturian kings) whose interest in marble is documented in texts and in surviving buildings, namely Charlemagne. His group at Aachen often features in histories of architecture as a veritable rebirth.³⁴ It certainly impressed one Muslim because of its beautifully-cut stone,³⁵ but he probably did not get up to the gallery to admire the columns, including two 2.33m shafts of green porphyry with bronze bases and marble capitals.³⁶ Of course, neither a full nor yet a correct picture of his “spolia achievement”³⁷ can be gained by studying what he did without taking Byzantium into account, but he was no innovator, doing little more than did Theoderic.³⁸ Indeed, the parallel achievements of Islamic rulers need to be assessed in order to explore whether Charlemagne’s scholars

³³ Noack-Haley, Sabine, *Asturische Königsbauten des 9. Jahrhunderts: die Kirchen San Miguel de Lina, Santa Cristina de Lena, San Salvador de Valdediós und das Belvedere am Naranco*, (Mainz 1994).

³⁴ Heitz, Carol, *L’architecture religieuse carolingienne: les formes et leurs fonctions*, (Paris 1980); 67 for reconstructions of the Ingelheim and Aachen palace complexes. *Falkenstein, Ludwig, “Charlemagne et Aix-la-Chapelle,” *Byzantion* LXI 1991, 230–89; 254ff. for the decoration, and 282ff. for a comparison with Constantinople.

³⁵ Miquel, André, *La géographie humaine du monde musulman jusqu’au milieu du 11e siècle*, 2 vols, (Paris 1975 & 1980), II, 360.

³⁶ *Otto der Grosse* II. Cat. IV.1.

³⁷ Overview in Jacobsen, Werner, “Spolien in der karolingischen Architektur,” in Poeschke, *Antike Spolien*, 155–68.

³⁸ Liverani, P., “Reimpiego senza ideologia: La lettura antica degli spolia dall’arco di Costantino all’età carolingia,” *Mitt. DAI Römische Abt.* 111 2004, 383–434; see 431.

might have acted in response to Córdoba or Jerusalem rather than Constantinople or Ravenna.

In what follows it is characteristic that for the West we must deal with Charlemagne's chapel,³⁹ not his palace, for the reasons laid out above. Schooled by his academics toward the re-creation of the classical world, Charlemagne surely took his cue from Pope Hadrian I, and tried earnestly to re-create early Christianity with its own and earlier materials, laboriously imported. Most accounts suggest (without evidence) that it was Charlemagne who inspired Hadrian.⁴⁰ This is unlikely. Popes Hadrian and Leo are the big 8th/9th-century builders, constructing over half the projects recorded in the *Liber Pontificalis* for the period, although the record might be skewed, for the text gets more detailed from Hadrian onwards. Hadrian is recorded in the LP as restoring the atrium of S. Paolo "ex marmoribus pulchris" (LP I.499), of refurbishing S. Peter's (LP I.503), "et cunctum pavementum ipsius ecclesiae ubi marmores confracte erant, adivit is aliis pulcherrimis, melioribus marmoribus renovavit." He hymned Charlemagne during his 774 visit with a poem (LP I.516, with acrostic) including the lines "Aema sumens divina gentes calcavit superbas, / Reddidit prisca dona ecclesiae matri suae." He marbled SM in Cosmedin, as an inscription indicates, and he refurbished S. Prassede before the reconstruction by Paschal, and possibly provided the great monoliths.⁴¹

Charlemagne's "extensive iconographical and cultural manoeuvres"⁴² are usually the focus of scholarly interest in revivalism and "renaissance,"⁴³ but sometimes of reasonable scepticism.⁴⁴ Perhaps, indeed,

³⁹ *Untermann, Matthias, "Opere mirabili constructa": die Aachener 'Residenz' Karls des Grossen, in *Paderborn 1999*, Beiträge, 152–64.

⁴⁰ E.g. Christie, Neil, "Charlemagne and the renewal of Rome," 178–9.

⁴¹ Paroli, Lidia, "La scultura in marmo a Roma tra l'VIII e il IX secolo," in Delogu, Paolo, ed., *Roma medievale: aggiornamenti*, (Florence 1998), 93–122; see 100ff. Author also deals with S. Cornelia in the domusculia Capracorum, founded by Hadrian 774/80, illustrating its great ambone and plutei fragments at figs 14–23; she also compares 98–9 the great mensole in S Salvatore at Spoleto with those in Cappella di S. Barbara at SS 4 Coronati, so dates the lot post-760, and concludes (100) that skilled masons in Rome were producing work similar to such prestigious Longobard material.

⁴² Hansen, *Eloquence of appropriation*, 158ff.

⁴³ Schutz, Herbert, *The Carolingians in Central Europe, their history, arts, and architecture: a cultural history of Central Europe, 750–900*, (Leiden 2004), 349 for the Torhalle as an explicit homage to Rome.

⁴⁴ McClendon, Charles, B., *The origins of mediaeval architecture. Building in Europe AD600–900*, (New Haven & London 2005), 97 "If the Torhalle is meant to be a 'copy' of the Arch of Constantine, why does it not look more like it?"

he refurbished an existing tradition, as is suggested for San Vincenzo al Volturno.⁴⁵ His impact on the architecture of Rome is perhaps oversold—or, at least, evidence and documentation are scarce.⁴⁶ I suggest that his productions are put firmly in the shade by those of the Muslims who, just as they studied and used other elements of the classical world, employed classical materials to develop architectural forms where the construction is new but the building-blocks of the source clearly in evidence. By contrast with Córdoba (in one account built entirely with booty taken from Christians),⁴⁷ the Chapel Palatine at Aachen is unadventurous in its structure, conventional in its decoration and in its use of marble for building materials, and very small. Hodges claims the archaeology “clearly shows that Rome was awakened with Charlemagne’s visit at Easter 774”.⁴⁸ But it was Hadrian, in charge of a vigorous program of rebuilding re-using earlier materials, and backed by his Lateran machine,⁴⁹ who was surely the spur to Charlemagne’s own building program, which much postdates his visit. It is not coincidental that it is Hadrian who restores Christian bishops to Africa, and initiates diplomatic relations there.⁵⁰ And given that Hadrian is the pope who tries to keep relics in Rome, the increased focus on pilgrims naturally leads him to refurbish the churches they will visit.⁵¹

Nor is the Palatine Chapel a first. It was not yet complete in 799 when an anonymous account of S. Denis described a church no less than obsessed by marble (by an author obsessed with figures). S. Denis had far larger quantities of marble, with no fewer than 193 columns and

⁴⁵ Marazzi, Federico, & Francis, Karen Diane, “L’eredità dell’antico. Tecnologia e produzione in un monastero imperiale carolingio: San Vincenzo al Volturno,” *L’Africa Romana* 11 II (Ozieri 1996), 1029–45. See 1042: “Più che di rinascita carolingiana dell’antico, si dovrebbe parlare di ripristino carolingio delle condizioni dell’antico. La massiccia e coscienziosa distribuzione di spolia, all’interno dell’monastero, non è finalizzata alla citazione di una memoria, ma al ripristino di quella che veniva considerate la normalità del decoro e della qualità di un luogo importante.”

⁴⁶ E.g. *Roma e l’età carolingia*, (Rome 1976).

⁴⁷ Reinaud, Joseph Toussaint, *Muslim colonies in France, Northern Italy and Switzerland*, (Lahore 1955), 117.

⁴⁸ Hodges, Richard, *Towns and trade in the age of Charlemagne*, (London 2000); see 56; *Christie, *From Constantine to Charlemagne*, 55f.

⁴⁹ Noble, Thomas F.X., *The Republic of St. Peter: the birth of the Papal State, 680–825*, (Philadelphia 1984), 138ff.; see 209 for the Lateran machine.

⁵⁰ McCormick, *Origins*, 513, and *Register* 181.

⁵¹ *Bauer, Franz Alto, “Roma come metà di pellegrinaggio,” in Buranelli, Francesco ed., *Carlo Magno a Roma*, (Rome 2001), 67–80, with a section on the translation, commerce and theft of relics.

capitals.⁵² This substantial rebuild (from its 57-metre-long 7th-century predecessor) was begun by Abbot Fulrad under Pippin, and consecrated in the presence of his son in 775. Its riches have been confirmed by excavation. Porphyry, africano, pavonazzetto and cipollino were found, including a large quantity of elements for opus sectile wall panels—so heterogeneous, suggest the excavators, that the builders must have broken up old materials.⁵³ So although Petrarch would refer to Aachen as a “marmoreo tempio,” (Fam, I.4), Charlemagne was a follower in the use of antiquities, rather than a leader. Liutprand used old materials for his palace at Corteolona,⁵⁴ proudly proclaiming in an inscription the richness of the precious marbles and columns.⁵⁵ As Calderini notes, Charlemagne probably visited this palace, and seeing Italian rulers using such antiquities may have encouraged him to do likewise at Aachen, as well as at Ingelheim, where the building with the exedra had granite and limestone columns, with marble capitals, all from Roman buildings⁵⁶—and presumably local ones.

For Aachen, some of the capitals were of local stone but perhaps newly carved to look like old ones.⁵⁷ Antiquities were imported from Ravenna and Rome,⁵⁸ surely as part of a political agenda of which we do not

⁵² Bischoff, Bernhard, ed., *Anecdota novissima: Texte des vierten bis sechzehnten Jahrhunderts*, (Stuttgart 1984), 215: from a MS in Karlsruhe. It is to hoped that the narrator knew marble better than he did arithmetic, for he gets his additions wrong. *Paderborn 1999* VIII.33 for marble column fragments—most were limestone.

⁵³ Blanc, Annie, et al., “Les roches ornementales de quelques sites gallo-romains, et du premier millénaire à Paris, à Saint-Denis et à Meaux, comparaison avec une ville du Sud: Périgueux,” in Chardon-Picault, P., et al., eds., *Les roches décoratives dans l'architecture antique et du haut Moyen Âge*, (Paris 2004), 25–42; see 30–33.

⁵⁴ Calderini, C., “Il palazzo di Liutprando a Corteolona,” *Contributi dell'Ist. di Archeologia (Univ. Catt. del Sacro Cuore, Milan)* 5 1975, 174–203. Three nine-footers in syenite, plus a larger broken cipollino monolith, are in the Musei Civici, Pavia.

⁵⁵ *AIMA* 2.363f. One reads in part: “Ecce domus domini perpulcro condita textu edicat et vario fulget distincta metallo. / Marmora cui pretiosa dedit, museumque columnas roma caput fidei, illustrant quam lumina mundi”; and the other: “Tunc ego regales statui mihi condere termas, / marmoribus pulchris Leutbrand Rex atque columnis.”

⁵⁶ Fried, Johannes, ed., 794, *Karl der Grosse in Frankfurt am Main: ein König bei der Arbeit: Ausstellung zum 1200—Jahre-Jubiläum der Stadt Frankfurt am Main*, (Sigmaringen 1994), cat. 1/1 for Ingelheim, the antiquities “wirken jedoch weniger einheitlich und planvoll eingesetzt als in der Aachener Pfalz.”

⁵⁷ Bullough, Donald, *The Age of Charlemagne*, (rev. ed., London 1980), 150. An analogy is the cutting of marble on the exterior of Modena; another is the modelling of new stone capitals in Francia to look like late antique ones.

⁵⁸ MGH Ep III.614: *Codex Carolinus* No. 81 for Hadrian's letter, which is mostly concerned with a gift of horses: “palatii Ravennate civitatis mosivo atque marmores ceterisque exemplis tam in strato quamque in parietibus sitis vobis tribuissimus.”

know the details because contemporary sources are silent on the matter.⁵⁹ Then again Cologne, some 60km from Aachen, had plenty of ruins to spoliage, some of them re-used in her later churches,⁶⁰ with some finds signalled.⁶¹ He chose for his capital Aachen, a small settlement with sulphur springs (for his ailments)⁶² that was not even on a main Roman road. He thereby perversely neglected Trier, an easily defensible Imperial capital (though abandoned for Milan in the 390s) complete with palace and plenty of surely marble-rich Roman settlements nearby. Old marbles were certainly added to Aachen, as an act of renewal,⁶³ but they must have been difficult to get to the town. Trier, by contrast, had ready-made and grand if dilapidated Constantinian churches. Its great basilica retains today some of its opus sectile paving, and it once had walls veneered up to the first window level, and mosaic above that,⁶⁴ similar to the arrangement at Aachen.⁶⁵ Does the import of coloured marbles to Aachen imply Imperium, that Charlemagne had wide ambitions? In Story's felicitous phrase, for ancient Rome coloured marbles "provided a 'material map' of the Roman Empire... a physical statement of the conquest of distant lands and

McCormick, *Origins*, 704: note 43: Charlemagne sent draft animals to bring marble and columns from Ravenna and Rome for his son-in-law's monastery at St-Riquier as well as for his own palace: Hariulf *Chron. Cent.* 2, 6.

⁵⁹ Otto der Grosse II. Cat IV.1: "Die häufig geäußerte Vermutung, Karl der Grosse habe sich mit den antiken Spolien seiner Pfalzkapelle programmatisch in politische Traditionen stellen wollen—seien es die Theoderichs des Grossen oder die roemischen Kaiser, allen voran Konstantins des Grossen—findet sich in den zeitgenoessischen Quellen nicht bezugt."

⁶⁰ Kramer, Joachim, "Die beiden spätantiken Kapitelle in St. Gereon zu Köln," *Kölner Jahrbuch für Vor- und Frühgeschichte* 24 1991, 297–349; both proconnesian; 344–6 for a long list of other re-use.

⁶¹ Mortet, *Recueil*, 172 (1081) for the rebuilding of S Pierre at Oudenburg, near Bruges: "Naturaliter autem hii lapides in oriente apud Coloniensem provin[c]iam repperiuntur. Vasa formosa atque pulc[h]errima, cippi et scutellae aliaque utensilia quam plurima in illo tempore ab antiquis ingeniose formata atque sculpta nostris temporibus reperta sunt."

⁶² Al-Mahdi's general, Al-Hasan b. Qahtabah captured Eskischir and soaked in its hot springs in 778 to assuage his ailments: Al-Tabari XXIX.206.

⁶³ MGH Dip. Karol. 1.441f.: "que longa vetustate deserta ac demolita, fructetis quoque ac vepribus occupata nunc renovavi." Clemens, Lukas, *Tempora Romanorum constructa. Zur Nutzung und Wahrnehmung antiker Überreste nördlich der Alpen während des Mittelalters*, (Stuttgart 2003): Cologne 44ff., Mainz 56ff. and Trier 63ff.

⁶⁴ Janes, Dominic, *God and gold in late antiquity*, (Cambridge 1998), 33.

⁶⁵ McClendon, *The origins of mediaeval architecture*, 109: multicoloured marble plaques have been found on the floor of tribune, so the walls must indeed have been veneered.

peoples.”⁶⁶ Many of the Imperial monuments were apparently intact when Charlemagne visited Rome, with the exception of the Forum of Augustus, which was quarried for materials.⁶⁷ But such a concept does not translate well to Aachen, where even the portico to the Palatine Chapel was wooden⁶⁸—although of course marble could be used to decorate wooden structures.⁶⁹

Although he did not wish to live there, he did obtain some materials—“multum marmor et museum plurimum”⁷⁰—from Trier (as well perhaps as from any number of Roman villa ruins round about). Columns (limestone if not marble, from the S. Barbara Baths) must have been in plentiful supply, and the Imperial Baths could certainly have yielded marble veneer. Presumably it was not just the quality of the pieces, but also their source, which was important. Romanitas without luxuria was evidently insufficient, and it was this that occasioned the request to Pope Hadrian. Savigni studies the extensive knowledge on the part of Carolingians and Ottonians in the prestige of Ravenna as an imperial capital,⁷¹ but it is not clear how if at all this interest is an architectural one. Hence Charlemagne’s political reason(s) for taking material for Ravenna can only be guessed at. The Exarchate of Ravenna had folded when the Lombards seized the city in 751, to be defeated by Pepin’s Frankish forces in 756. Charlemagne had visited the city in 774. Ravenna and large areas of central Italy were then handed to the Papacy, because the region was Papal not Byzantine. So is Charlemagne intent on any one (or more, or indeed all) of the following: rebuilding civilization in the North; importing antiquities as a marker for Frankish triumph; imitating S. Vitale; spreading Papal influence; demonstrating his technological, artistic and logistical sophistication

⁶⁶ Story, Joanna, et al., “Charlemagne’s black marble: the origin of the epitaph of Pope Hadrian I,” *PBSR LXXIII* 2005, 157–90; see 163.

⁶⁷ Meneghini, *Edilizia pubblica*, introduction.

⁶⁸ Schlosser, *Schriftquellen*, cat. 126, from Einhard’s *Annales*. It collapsed in 817.

⁶⁹ *Ibid.*, cat. 2 for general advice from the *Libri Carolini* III.30: “Si quis ligneam domum aedificans si parietes cupit marmoreis exornare tabulis aut variare multicoloribus vitri frustulis, dum cernit ligno eadem metalla per naturam minime posse cohaerere, spreto his metallis quae ligno per naturam cohaerere nequaquam possunt, lignis denuo conatur perficere...”

⁷⁰ *Ibid.*, cat. 202: *Gesta Treveror.* chap 25.

⁷¹ *Savigni, Raffaele, “Memoria urbis: l’immagine di Ravenna nella storiografia di età carolingia-ottoniana,” *Ravenna da capitale imperiale a capitale esarcale*, (Spoleto 2005) II, 615–701.

and reach? Einhard's comment about fetching materials from the south only when they could not be found elsewhere⁷² might make us wonder whether any of the marble fittings from the bath on top of which the Palatine Chapel sits found their way into the adjacent palace. But the comment does not prove that antiquities were involved if "black stones" were indeed being fresh-quarried in his realm. Then again, Einhard visited Rome only once, in 806, so perhaps he knew Trier better. In the same paragraph Einhard writes of the beauties of Aachen's candelabra and bronze railings—and perhaps the revival of bronze-casting was accompanied by that of quarrying. Was Charlemagne in lettering, quarrying and bronze-casting proving he was a match for the ancients? He brought a bronze equestrian statue of Theoderic from Ravenna to Aachen, together with mosaic tesserae and the large bronze pine cone (Old S. Peter's had a famous one), perhaps so that his own works could stand comparison with those of Antiquity, as in the bronze statuette of "Charlemagne" from Metz. Cagiano de Azevedo has suggested⁷³ that Charlemagne deliberately modelled his palace after antique example; this seems possible if the Ravenna marble came from the imperial palace at Ravenna, which was probably already being despoiled.⁷⁴ The materials from Ravenna included marble from floors and walls, and if Charlemagne did indeed have a political resurrection platform (of which the Lateran Palace in Rome would have formed one plank), then perhaps some went into his palace as well as his chapel. But such speculation might go too far, for getting old marbles from such prestigious places has the whiff of a topos, rather like the Monk of S. Gall's statement that "ad cuius fabricam de omnibus cismarinis regionibus magistro et opifices" were brought.⁷⁵ It is just possible that when Agnellus tells a story about a divine wind cracking the marble paving

⁷² *Vita Karoli Magni* 26: "Ad cuius structuram cum columnas et marmora aliunde habere non posset, Roma atque Ravenna devehenda curavit."

⁷³ Cagiano de Azevedo, M., "Policromia e polimateria nelle opere d'arte della tarda antichità e dell'alto medioevo," *Felix Ravenna* 1 1970, 223–59; see 241.

⁷⁴ Verzone, P., "La distruzione dei palazzi imperiali di Roma e Ravenna e la ristrutturazione del Palazzo Lateranense nel 9 secolo nei rapporti con quello di Costantinopoli," in Hubert, J., ed., *Roma e l'età carolingia*, (Rome 1976), 39–54; see 39f.; *ibid.*, "La demolizione dei palazzi imperiali di Roma e di Ravenna nel quadro delle nuove forze politiche del sec. VIII," in Schmoll, J.A., ed., *Festschrift Friedrich Gerke*, (Baden-Baden 1962), 77–9. Riché, P., "Les représentations du palais dans les textes littéraires du haut moyen âge," *Francia* IV 1976, 161–71.

⁷⁵ Schlosser, *Schriftquellen*, cat. 104.

slabs in the church of S. Martino, which a “King of the Vandals” was trying to despoil, this is a reference to Charlemagne, since there were no longer any Vandals in Agnellus’ day.⁷⁶

What was the impact of Charlemagne’s employment of antiquities at Aachen? His example influenced take-up in Magdeburg,⁷⁷ including opus sectile,⁷⁸ but apparently not elsewhere, except perhaps for small quantities of material.⁷⁹ In Otto’s church the shafts, capitals and bases supported the nave; but that church was destroyed by fire in 1207, so the marble elements were translated to the present church, where they are displayed as decorative not structural trophies around the inside of the choir. Such sumptuous is repeated elsewhere in much smaller quantities and qualities: Meckseper demonstrates that all the known Mediterranean (as opposed to local) antiquities are within (or just outside) the borders of 10th-century Saxony, which surely does demonstrate some kind of plan⁸⁰—the more so since wooden churches were still being built in Saxony in the 10th century.⁸¹ Magdeburg was important because of its primacy, to which old marble and porphyry symbolically contributed.⁸² So that great as were the impact of the Palatine

⁷⁶ Agnellus, *Pontiffs*, 87 & note 9.

⁷⁷ *Goetz, W., “Der Magdeburger Domchor: zur Bedeutung seiner monumentalen Ausstattung,” *Zeitschrift des deutschen Vereins für Kunstwissenschaft* 20 1966, 97–120. Meckseper, Cord, “Antike Spolien in der ottonischen Architektur,” in Poeschke, *Antike Spolien*, 179–96 & figs 8–9. Peter, Michael, “Otto der Grösse, Magdeburg und die Antike: zur Verwendung antiker Spolien aus dem Mittelmeerraum in ottonischer Zeit,” *Antike Welt*, 32.3 (2001), 295–8. Effenberger, Arne, “Byzantinische Kunstwerke im Besitz deutscher Kaiser, Boschoefe und Klöster im Zeitalter der Ottonen,” in Brandt, Michael, & Eggbrecht, Arne, eds., *Bernward von Hildesheim und das Zeitalter der Ottonen*, (Hildesheim 1993), I, 145–59; and II cat. 35 entry II-12 for the Magdeburg columns transported from Italy; 37 for view of the choir with the antiquities in place; cf. *Chronicle* (2, 17) of Thietmar von Merseburg (975–1018): “Preciosum quoque marmor cum auro gemmisque cesar precipit ad Magdeburg adduci. In omnibus columnarum capitibus sanctorum reliquias diligenter inclusi iussit.” But the same author (II.43) says Otto was buried in a marble sarcophagus—whereas the current vessel is stone, with a flat marble slab for a lid.

⁷⁸ A few fragments found in Domplatz excavations: cf. *Otto der Grosse* II. Cat. V.17.

⁷⁹ Such as the tiles using red and green porphyry, serpentine, verde antico and white marble at Münster: cf. *Paderborn 1999*, VIII.50.

⁸⁰ Meckseper, Cord, “Magdeburg und die Antike—zur Spolienverwendung im Magdeburger Dom,” *Otto der Grosse*, I.367–80; see fig. 1, and fig. 13 for availability of local antiquities.

⁸¹ *Thietmar, Chronicle*: II.32: at Verden [Lower Saxony] Bishop Amelung (933–62) “Because stone was not available, Amelung had erected and consecrated a magnificent wooden church which surpassed others in its size and quality;” II.42: “My grandmother Judith rests in a church which her daughter constructed, with great effort, out of stone, a rare material in this region.”

⁸² *Goetz, “Der Magdeburger Domchor,” 102 for the 967 bull of John XIII, that M.

Chapel's plan and elevation, none of the imitators used large-scale antiquities.⁸³ It is impossible to believe that none were available, even if not of Ravenna/Rome quality, and this is proved by the existence of a Byzantine column at Hildesheim.⁸⁴ And if there was plenty of construction (Heitz lists 27 new cathedrals, 417 monasteries and 100 royal palaces, most between the Rhine and the Seine) much of this was small-scale, as indeed was Aachen itself. Nor did Charlemagne or his scholars lead the way in the secular re-use of sarcophagi. Louis the German was buried in sandstone, but Charlemagne's brother Carloman was buried in an antique sarcophagus in 771 in S. Rémi at Rheims, long before Charlemagne himself in one showing the myth of Persephone, and presumably brought from Italy.⁸⁵ For a monarch such as the Great Charles, remarkably little is known about his tomb. Otto of Lomello's supposed eye-witness account of its opening says the monarch was found seated on a throne, crowned, and above him a crypt, "strongly built of marble."⁸⁶ Einhard does not mention the sarcophagus at all, and Nelson suggests this had been chosen by others. She also demonstrates that the scholars of Louis the Pious (Charlemagne's son and successor) were more tightly programmatic, for his Red Sea sarcophagus suggests a sophisticated attempt to match subject-matter to man. Her conclusion is therefore that not only was Louis "busily constructing a distinct imperial identity" by using antiquities, but that Walahfrid Strabo's poem hailing Louis as a new Moses refers explicitly to the sarcophagus, which she also believes was brought from Aachen to Metz.⁸⁷

should "omnium ecclesiarum...qui in Germania sont ordinati...in sententiis dandis omnique ecclesiastico ordine primatum habere."

⁸³ Heitz, *L'architecture religieuse carolingienne*, 79: table of imitations (at 14.4m for central rotunda, total diameter 32.8): Centula: 9m and 18m; Goslar II 12.3 and 26m; Fulda S. Michael 5.8m and 13.4m—and several more, 16 in all.

⁸⁴ Brandt & Eggebrecht, eds. *Bernward von Hildesheim*, entry VIII-18 for the proconnesian column-shaft from Constantinople, first half of 6thC, a gift to Bernward which used to stand in front of the Kreuzaltar; Effenberger, "Byzantinische Kunstwerke," points out two shafts of the same material at Aachen. But VIII-35: Bernward's sarcophagus is of sandstone, in the crypt of S. Michael.

⁸⁵ Jung, Helmut, "Der Persephonesarkophag Karls des Grossen," *Jbuch DAI* 117 2002, 283–312: notes 2 & 3 for discussion of the vessel's history; Dierkins, A., "Autour de la tombe de Charlemagne," *Byzantion* LXI 1991, 56–80. *Paderborn* 1999 X.41–2 for both vessels.

⁸⁶ Nichols, Stephen G., *Romanesque signs: early medieval narrative and iconography*, (New Haven 1983), 67.

⁸⁷ Nelson, Janet L., "Carolingian royal funerals," in Theuvs, Frans, & Nelson, Janet L., eds., *Rituals of power from late antiquity to the early middle ages*, (Leiden 2000), 131–84; see 150, 155ff.

Louis' antiquarianism⁸⁸ is certainly more programmatic than anything associated with Charlemagne. Falkenstein, amongst others, has disputed Charlemagne's intentions.⁸⁹ Thus Nees is highly sceptical of Panofsky's idea of a Carolingian renaissance,⁹⁰ arguing that the interest in rebirth is mainly devotional, a revival of early Christian worship.⁹¹ And even if the church count is high, this does not necessarily indicate any grand architectural designs, any more than the term "palace" presupposes sumptuous fittings. Over-inflation is the problem, Brown suggesting that the myth surrounding him has led scholars to judge him and his court "according to unrealistically exalted expectations,"⁹² which is to say by anachronistic ones.⁹³ One element often underplayed in the general enthusiasm to declare a renaissance of the antique is that a main interest of the Carolingians lies in strengthening Christianity, and not only through the erection of churches. Perhaps Charlemagne's advisors were attempting to establish their antiquarian credentials as revivifiers of Early Christianity when they cut the epitaph for Hadrian, a slab of marble 2.2m by 1.17m, which is to be paralleled with the concern for earlier letter forms seen in Carolingian manuscripts. Petrucci signals the energy of Pope Damasus (365–84) in the provision of odes composed by Philocalus, and "designed for carving on marble slabs in monumental capitals of great geometric strictness and high formal expressivity".⁹⁴ The Carolingians in their pursuit of relics would have known of Damasus' work, and with Hadrian's epitaph may have been

⁸⁸ Melzak, Robert, "Antiquarianism in the time of Louis the Pious and its influence on the art of Metz," in Godman, Peter, and Collins, Roger, eds., *Charlemagne's heir: new perspectives on the reign of Louis the Pious (814–840)*, (Oxford & New York 1990), 629–40, deals with Louis' sarcophagus, and then with copies and adaptations of antique MSS made during his reign.

⁸⁹ Falkenstein, Ludwig, *Der "Lateran" der karolingischen Pfalz zu Aachen*, (Cologne 1966). Cf. Bullough, D, in *BM* 108 1966, 324: "in this field confidently asserted 'facts' may really be only plausible hypotheses."

⁹⁰ Schutz, *The Carolingians in Central Europe*, 315: "Roman originals and replicas were used to impress on all the continuity of the Roman past as a Frankish present in Aachen."

⁹¹ Nees, Lawrence, *A tainted mantle: Hercules and the classical tradition at the Carolingian Court*, (Philadelphia 1991), 8ff.

⁹² Brown, *The rise of Western Christendom*, 438.

⁹³ Schutz, *The Carolingians in Central Europe*, 323ff. for speculation on the fittings (including marble) of Carolingian palaces.

⁹⁴ Petrucci, Armando, *Writing the dead: death and writing strategies in the Western tradition*, (Stanford 1998), 32.

imitating for all we know examples (now lost) of 9th-century epigraphy in Rome. Indeed, there are comparanda in Rome demonstrating the Hadrian epitaph to be far from unique.⁹⁵

Were we to draw a graph of the re-use of antiquities in the West, it would not demonstrate that Charlemagne's advisers were pioneers in revivifying the antique. Rather it would show that at least part of the Charlemagne phenomenon derives from the abundance both of apposite published documents and of scholars to explicate and promote what is in essence a Suetonian topos. Charlemagne has therefore to thank a brigade of scholarly lobbyists (some writing poems proclaiming marble)⁹⁶ that K Street could only dream about. Today he is presented as a member of "the first ruling family of post-Roman Europe powerful enough to have scope for Roman pretensions, and the first to indulge in sophisticated self-conscious antiquarianism."⁹⁷ In the liturgy of the EU, he is of course the ancestor of Europe, as the first unifier of the continent before Napoleon and the Wehrmacht. It is likely, furthermore, that the abundance of some Carolingian documentation and its dearth elsewhere seriously distorts what happened, thus overbalancing any assessment of relative importance or impact. For example, much less survives from Pavia, whence Charlemagne's advisors arguably got many of their ideas. And in one area we remain in the dark: the amazing series of works in bronze with which Charlemagne endowed his capital at Aachen—the railings, the capitals, or the door decorations with the famous lions' heads.⁹⁸ These were unaccompanied, we might note, by any figural work except for the famous statuette from Metz, which might be later. Although it is certain that bronze was indeed cast in Francia and Italy at this period, these achievements have no surviving Italian equivalent in the ninth century; but then, how much metalwork or fabric, from the several tons mentioned in the LP, has survived? None can be identified. Perhaps Charlemagne's workmen

⁹⁵ In the Lapidario of S Paolo fm, a plaque of Gregory I detailing in splendid lettering various donations; fragmentary inscription of Gregory III (d.741).

⁹⁶ Schlosser, *Schriftquellen*, cats 97 (Angilbert), 144 (Poeta Saxo), 145 (Ermoldus Nigellus).

⁹⁷ Henderson, G., *Style and civilisation: early medieval*, (Harmondsworth 1972), 104. Or Grabar, *L'art de la fin de l'antiquité*, 81: "En Allemagne, ou la tradition impériale continue à hanter les esprits..."

⁹⁸ Braunfels, W., "Karls des Grossen Bronzwerkstatt," in Braunfels, W., & Schnitzler, H., eds., *Karl der Grosse, Lebenswerk und Nachleben, III: Karolingische Kunst*, (Dusseldorf 1966), 168–202.

learned the trade of bronze casting from their Moslem contacts, two of whose large candlesticks reached him as presents along with the elephant in 801–2.

Charlemagne and the Islamic world

On the evidence, then, and surely in response to the desperate need to locate signposts pointing ever onward to ‘the’ Italian Renaissance, what we actually know about the Carolingian architectural achievement has been overplayed, given that we have only one small if sumptuous chapel, and little evidence for sumptuous palace buildings to accompany it. The Palatine Chapel is an exception in European architecture, and certainly part of a programmatic revival of Early Christian (and in this case partly Byzantine) models. But I suggest that Charlemagne’s advisors were encouraged in the design and specification of the Chapel by the crucial Christian monument of Jerusalem, namely the Holy Sepulchre; and in its use of old marble by the startling religious-and-secular complexes erected before and during Charlemagne’s reign in Baghdad, Kairouan, Córdoba and again Jerusalem (with the Dome of the Rock, the rebuild of the Al-Aqsa Mosque and the adjacent palaces). Ravenna was just about dead; the new buildings in Rome were certainly impressive; but Islam was exploding with palaces and religious buildings which put Europe firmly in the shade. Charlemagne had antennae all over the Mediterranean, as we shall see, and I now turn to the contacts and exchanges which made Aachen aware of developments in Islam.

The Carolingians may have been trading directly⁹⁹ with the Islamic world in the 8th century. Amalfi (which had colonies in Jerusalem, at Antioch by the 9th century, and at Cairo in 996) certainly was doing so, helped in market penetration by Islamic shipping difficulties.¹⁰⁰ Einhard remarks on “Sarracenus de Africa, legatus amirati Abraham qui in confino Africae in Fossato praesidebat.”¹⁰¹ This is Fustat near Kairouan,

⁹⁹ Although nearly 600 Islamic coins are listed for the empire: McCormick, *Origins*, 344ff.

¹⁰⁰ Citarella, Armand O., “La crisi navale araba del secolo VIII e l’origine della fortuna commerciale di Amalfi,” *Amalfi nel medioevo*, (Salerno 1977), 195–213.

¹⁰¹ Citarella, Armand O., “Il commercio di Amalfi nell’alto Medioevo,” (Salerno 1977), 12 note 33 for Einhard; 23 & 24 for colonies; and 148 for Amalfitan commerce at Mahdiya, Constantinople, Pavia, Rome, Egypt and even Athos; Tangheroni, Marco, *Commercio e navigazione nel medioevo*, (Bari 1996), 94–8 for Amalfi and S. Italy.

the site of the Great Mosque considered in the preceding chapter. Islamic imports competed with Byzantine ones in Western markets. Several of these related to shared passions such as hunting dogs, which Harun requested after his embassy was taken hunting at Aachen by Charlemagne.¹⁰² The famous elephant could have been desired for use in hunting game, but it is conceivable if unlikely that Charlemagne had heard about the dragging ability of these beasts and wanted one for shifting building materials.¹⁰³ Much later, for example, Al-Mutawakkil at Samarra (notes Ibn Al-Jawzi) “spent 1,500 dinars on the transport [of a large marble basin etc] up to the entry into the mosque, and if it had not been for the elephants, he would have spent twice that.”¹⁰⁴ Nowadays Thai elephants can pull logs of up to 1300kg (i.e. 1.3 metric tons), which would have been sufficient only for shafts up to about 3 metres in length. Much more likely, Charlemagne’s advisors knew that Justinian was given an elephant from India, and that Heraclius brought four back from his Persian campaigns—rare animals to enhance the power of a prince.¹⁰⁵

Charlemagne also learned about the Islamic world from scholars. Theodulf of Orléans arrived at Charlemagne’s court from Saragossa perhaps in the early 780s with a flood of refugees when the city was captured by Abd Ar-Rahman I in 781/2, and may have influenced Charlemagne’s attitudes to infidel warfare.¹⁰⁶ Theodulf visited Narbonne, and reported the bribes he was offered in his *Contra Iudices*. These included crystal and gems from the East, Córdoba leather, an Arabic rug, and Islamic coins; and a man told him “Est mihi vas aliquod signis,” perhaps an ancient vase.¹⁰⁷ Above all, he arrived at Aachen well before the Palatine Chapel was built. Theodulf’s own church at Germigny-des-Prés was recorded by the Abbots of Fleury as “so marvelous a building that nowhere in Neustria could its equal be found,”

¹⁰² Allsen, Thomas T., *The royal hunt in Eurasian history*, (Philadelphia 2006), 224–6. 233ff. for the traffic in animals and their trainers.

¹⁰³ Elephants draw a carriage on the diptych with apotheosis (c.400) in the British Museum.

¹⁰⁴ Northedge, Alastair, *The historical topography of Samarra*, (London 2005), 328.

¹⁰⁵ Droucourt, Nicolas, “Les animaux comme cadeaux d’ambassade entre Byzance et ses voisins (VII^e–XII^e siècle),” in Doumerc, Bernard, & Picard, Christophe, eds., *Byzance et ses périphéries (mondes grec, balkanique et musulman)*, (Toulouse 2004), 67–93; see 80ff. for prestigious rare animals, and 87ff. for emulation between oriental courts, both Christian and Moslem.

¹⁰⁶ Hen, Yitzhak, “Charlemagne’s Jihad,” *Viator* 37 2006, 33–51; 45ff. for Theodulf.

¹⁰⁷ Nees, *A tainted mantle*, 50, 56–7.

and his villa was also very sumptuous.¹⁰⁸ So did this sophisticated man describe the wonders of Córdoba to the Court?

Three factors widen Carolingian horizons into the Islamic world. These are a heightened concern for the translation of relics from even further afield, and travel associated with pilgrimage, relics and trade. The third is gift-exchange as an element of diplomacy, which neatly unites relics with travel, because of the new vogue for far-flung relics, itself an offshoot of equally heroic pilgrimages. Relics are viewed by Osborne as “a prominent focus for the construction of political identity,” signaled by Pope Paul I’s (757–67) campaign to move relics from the suburban cemeteries to churches *intra muros*¹⁰⁹—with accounts of such translations being a rich source of references to marble.¹¹⁰ This was done to conserve a declining resource,¹¹¹ and in response to vigorous relic-collecting for institutions such as Sens and Chelles.¹¹² Although of course Gregory of Tours had shown the way long before,¹¹³ Geary identifies 750–850 as a period of high demand, resulting “from an aggressive Carolingian expansion in northern and eastern Europe.”¹¹⁴

Not only did relics reach Aachen via ambassadors or the initiative of people like Archbishop Leidrad, but westerners also travelled on pilgrimage and relic-hunting trips. Travel broadens the mind, and it is

¹⁰⁸ Freeman, Ann, “Theodulf of Orleans: a Visigoth at Charlemagne’s court,” in Fontaine, Jacques, & Pellistrand, Christine, eds., *L’Europe héritière de l’Espagne visigothique*, (Madrid 1992), 185–94.

¹⁰⁹ Treffort, Cécile, *L’Église carolingienne et la mort: christianisme, rites funéraires et pratiques commémoratives*, (Lyon 1996), 131–43: it is significant that there are so few physical architectural examples (as distinct from MGH-type references) on which she can draw for her examples.

¹¹⁰ Heinzelmänn, Martin, *Translationsberichte und andere Quellen des Reliquienkultes*, (Turnhout 1979), 89ff. for its development; 94–9 for the Classical Period, 8th–11thC.

¹¹¹ Osborne, John, “Politics, diplomacy and the cult of relics in Venice and the northern Adriatic in the first half of the ninth century,” *Early Medieval Europe* 8 1999, 369–86; see 369, 372; Heitz, *L’architecture religieuse carolingienne*, 48 for map of the translation of relics during the Carolingian period.

¹¹² McCormick, *Origins*, 298ff.: Map 10.1 for 7th–9thC relics at Sens and Chelles; table 10.5 for the sources of the relics at Sens; including the Holy Land, Alexandria, Constantinople and Ephesus; Saxer, Victor, “Il tesoro delle reliquie di Chelles (Francia). Carte Merovingie e Carolingie di ‘Autentiche’,” *Atti della Pontificia Accademia romana di archeologia. Serie 3 Rendiconti LIX* 1986–7, 127–47: 17 of the relics from the Holy Land, 2 from Syria, 3 Asia Minor, 7 Egypt.

¹¹³ Weidemann, Margarete, *Kulturgeschichte der Merowingerzeit nach den Werken Gregors von Tours*, 2 vols, (Bonn 1982), II 169ff. for reliquaries and relics.

¹¹⁴ Geary, Patrick, “Sacred commodities: the circulation of medieval relics,” in Appadurai, Arjun, ed., *The Social Life of Things*, (New York 1986), 169–191; see 176; and see 182 for Alcuin’s vigour in obtaining them.

no coincidence that important sites for relics were often important sites for architecture (and marble). Thus Saint Willibald on his pilgrimage of 721/2 (returned 730, when he went to Montecassino) visited Benevento, Syracuse, Ephesus, Patara, Paphos, Emessa (where he was put in chains by the Saracens as a spy), Damascus, Caesarea, Jerusalem, Gaza, Tyre and Nicaea.¹¹⁵ Ephesus, with its strategic location as a conduit between Asia Minor and the sea, was welcoming pilgrims and providing relics in the 6th century, and was still being visited for its relics in the 12th century.¹¹⁶ Jerusalem, for obvious reasons, was yet more important, and had been endowed by Constantine with fine buildings such as the Nea. The octagonal church on Mount Gerizim¹¹⁷ was also popular, and regularly visited by pilgrims, no doubt for its size (the octagon measures 37.4 × 30m with a peristyle 53 × 39m) and the luxury of its marble paving and wall revêtements.¹¹⁸ Apart from the Holy Sepulchre most of these monuments had been reduced to ruins well before the time of Charlemagne, but their various and extensive re-used elements had, after the intermediate mosque reported by Arculf (c.680), then been used for the ambitious Al-Aqsa Mosque on the Haram Al-Sharif, and for a palace complex connected to it, as we saw in the last chapter. The Moslem mosque-plus-palace replaced Herod's temple-plus-palace, and the gigantism of Herod's stoa was part-translated into the Al-Aqsa Mosque. This occupied the whole of one side of the Haram, and with the palace behind and below it, the buildings were connected together by a passage at palace-roof level. There is symmetry in the admiring comments of scholars about both complexes: Herod's was, when built, "probably the largest building in the world, excluding the Pyramids,"¹¹⁹ while the Moslem reworking of the same area was "one of the largest, if not the largest, Muslim building project undertaken in the first

¹¹⁵ MGH SS 15 500–501; MGH *Poetae Latini* 1 544–8 for his Carmina 46 & 47; Acta SS 7 July 515.

¹¹⁶ Foss, Clive, "Pilgrimage in medieval Asia Minor," *DOP* 56 2002, 129–51; see 130.

¹¹⁷ Ovadiah, Asher, "Churches of the age of Justinian in Israel," in Cambi, Nenad, & Marin, Emilio, eds., *Congresso internazionale di archeologia cristiana*, (Rome 1998), II, 77–96; 81f. on the Nea, and 78f. and 86–9 for text and reconstructions of the Mount Gerizim church.

¹¹⁸ Magen, Yitzhak, "The Church of Mary Theotokos on Mt Gerizim," in Tsafir, Yoram, ed., *Ancient churches revealed*, (Jerusalem 1993), 83–9; the columns were red limestone, and only fragments survive.

¹¹⁹ Grafman, Rafi, & Rosen-Ayalon, Myriam, "The two great Syrian Umayyad mosques: Jerusalem & Damascus," *Muqarnas* 16 1999 1–15; see 1.

century of Islam.”¹²⁰ The Umayyads, who built this complex, were to expire in 750, and the Al-Aqsa was badly damaged in an earthquake in 746. But it was rebuilt by Al-Mansur in c.771 and refurbished in some way unknown c.780 by Al-Mahdi. Hence the whole complex was very much a going concern in Charlemagne’s day, and highly visible on its pedestal which was the erstwhile Temple podium. Already the Umayyads, as Grabar reminds us, built a Roman- and Byzantine-derived architecture intended to express consciousness of their high status and as a setting for their elaborate ceremonial.¹²¹

Gift-exchange was an important element in both Byzantine and Islamic contexts¹²² and, along with travels and indeed crusades, was an essential conduit for cultural as well as political ideas.¹²³ The hostility of the Byzantines to Charlemagne (an evident competitor) made the West turn to the Abbasids, and then to the Aghlabids. The Moslems needed these alliances, because their trade was restricted for some 70 years (752–820) due to a shipping crisis.¹²⁴ Embassies were sometimes necessary to obtain relics. Angilbert, Abbot of S. Riquier (or Centula, in Picardy, from 790), wrote of relics coming from all over the Christian world, while Hariulf wrote of the need for marble columns for the same church.¹²⁵ The Christian world, of course, necessarily included territories now under Islamic control, so we can add relics to trade and gifts as an explanation of how Alcuin’s and Charlemagne’s religious and trading interests could be incorporated into political concerns. Indeed, Charlemagne’s reach was long: in c.801 Archbishop Leidrad of Lyon

¹²⁰ Peters, Francis E., *Jerusalem and Mecca: the typology of the holy city in the Near East*, (New York 1986), 92.

¹²¹ Grabar, Oleg, *Ceremonial and art at the Umayyad court*, PhD, Princeton 1955 (printed Ann Arbor 1985).

¹²² Hamidullah, M., ed., *Ghada Qaddumi, The Book of Gifts and Rarities*, (Harvard 1996). Cutler, Anthony, “Gifts and gift exchange as aspects of the Byzantine, Arab, and related economies,” *DOP* 55 for 2001, pp. 247–78; *ibid.*, “Les échanges de dons entre Byzance et l’Islam (IX^e–XI^e siècles),” *Journal des Savants* 1996 fascicule 1, 51–66.

¹²³ *Menestò, Enrico, “Relazioni di viaggi e di ambasciatori,” in Cavallo, Guglielmo, et al., eds., *Lo spazio letterario nel medioevo I, Il medioevo latino, I, La produzione del testo*, II, (Rome 1993), 535–600; 537ff.: Jerusalem, 550ff.: Rome, 557ff.: Santiago, 561ff.: Crusades; 568ff.: missionaries; 589ff.: imaginary travels and mirabilia.

¹²⁴ Citarella, “La crisi navale araba,” 198, 200–1, 209–10.

¹²⁵ PL 174 col 1240f. for Hariulf’s *Chronicon Centulense*: “artifices doctissimos ligni et lapidis, vitri et marmoris Angilberto dirigit regia potestas. . . Centulense monasterium omni honorificentia attollere cupiebat, direxit vehicula fortia et multa in urbem Romam, ut marmor et columnae ad ornatum jam dictae ecclesiae deferrentur.”

obtained “relics from Charlemagne which his envoys to Baghdad had acquired from the guardians of S. Cyprian’s shrine at Carthage.”¹²⁶ A glance at the map will show the several thousand kilometres involved, but such visiting of erstwhile ancient sites was probably far from rare. Indeed Delogu, writing of the 9th-century clash between the Moslems who could not conquer all Spain, and the Franks who could not conquer all Italy, observes that “it is evident that both Spain and Italy were just as relevant for the Franks as they were for the Mediterranean powers; their importance was due not only to their strategic position, but to ideological values and probably to commerce.”¹²⁷ Equally, relics further afield were avidly sought. McCormick emphasizes that in Carolingian communications “the most striking element is certainly the role of the Caliphate in suggesting or supplying cults to both Sens and Chelles in an era when historians reckon communications with the Middle East to have been at rock bottom.”¹²⁸ Indeed, connections with the Caliphate increase in the 9th century,¹²⁹ directly as well as via Catalonia and Septimania, both buffer states which absorb and transmute Islamic architectural ideas.¹³⁰

In 796 Charlemagne received from Leo III the gift of the keys to S. Peter’s tomb, a compliment but also a charge probably as embroidered as was the supposed delivery by the Patriarch to him in 804 of the keys to the Holy Sepulchre, offering symbolical rulership of Jerusalem. Thanks to pilgrims, everyone would know what this monument looked like, and would surely see its connections with the plan and elevation of

¹²⁶ McCormick, *Register* 891. Vicillard-Troikourov, M., “La chapelle du palais de Charles le Chauve,” *Cahiers Archéologiques* 21 (1971), 89–109 for the context.

¹²⁷ Delogu, Paolo, “Transformation of the Roman world: reflections on current research,” in Chrysos, Evangelos, & Wood, Ian, eds., *East and West: Modes of communication. Proceedings of the first plenary conference at Mérida*, (Leiden 1999), 243–57; see 256.

¹²⁸ McCormick, *Origins*, 385 for quote; 434ff. for tables and graphs; he tabulates movements, the percentages in the half-centuries from 700 being 11, 14, 34 and 41 respectively.

¹²⁹ Zimmermann, Michel, *Els Carolingis i el califat*, in **L’Islam i Catalunya*, (Barcelona 1998), 93–107. Another overview in Sénac, Philippe, “Les carolingiens et le califat abbasside (VIII^e–IX^e siècles),” in Prouteau, Nicolas, & Sénac, Philippe, eds., *Chrétiens et musulmans en Méditerranée médiévale (VIII^e–XII^e siècles): échanges et contacts*, (Poitiers 2003), 3–19.

¹³⁰ Carbonell, Eduard, “Les influències de l’estètica musulmana en l’art romànic català,” **L’Islam i Catalunya*, (Barcelona 1998), 201–7:—marble capitals, textiles; illustrates the superb marble terracing arcade element (which looks like a mihrab) from Madinat, now in the Museu Diocesà de Tarragona.

Aachen. Why the tutelage of the keys, if this ever happened? Because just as the military might of Islam was alarming, so also there were grounds for a perception that the Christian in the Holy Land could be in some architectural danger. In 721 Yazid II issued an iconoclastic edict extending prohibition not only to mosques but to Christian churches as well. If we are to believe the late-10th-century Copt, Severus ibn-Al-Muqaffa, he had already decreed in 713/714 that “the colored pillars and the marble which were in the churches should be taken away, and they were all carried off,”¹³¹ obviously for beautifying mosques at the expense of Christianity. So it is useful to try and set the Palatine Chapel in the pan-Mediterranean context in which papal and patriarchal flattery placed him.

Indeed, Charlemagne had several connections with Jerusalem, Kairouan and Baghdad during his reign, the focus being provided by gift-exchange and relics as well as by the supposed safeguard of the Holy Places. The context is diplomatic exchanges between Western and Islamic rulers,¹³² and developing trade and imports of luxury goods,¹³³ which set an expanding trend.¹³⁴ To help with the ensuing discussion on possible inspiration for the Palatine Chapel these, together with important building activities, are set out below as a table, with fuller details for each exchange given in the Appendix at the end of this chapter.

¹³¹ Vasiliev, A.A., “The iconoclastic edict of the Caliph Yazid II, A.D. 721,” *DOP* 9 1956 23–47; see 40–1.

¹³² McCormick, *Register* 177; Registers 298 for embassy from the emir of Córdoba to Aachen; 445 for embassy from Constantinople to Córdoba in 839, offering a treaty against the Abbasids and Aghlabids; 481 for Abd Ar-Rahman II’s embassy to Charles the Bald at Reims in 847; for the sources cf. Rau, Reinhold, *Quellen zur karolingischen Reichsgeschichte*, (rev. ed., Darmstadt 1968–69); I.66: *Annales Regni Francorum* for 797; I.96 *ibid.* for 810, for legations from Constantinople and Córdoba; I.110 & 140: *ibid.* for 816 & 824 legations from Abd Ar-Rahman from Saragossa; I.140: *ibid.* for 824: Aebulus goes to Córdoba; II.70 *Annales Bertiniani* for 847 for legates from Córdoba; and II.98 for 858, when a monk goes from Saint Germain des Prés to collect relics from Córdoba (of SS George and Aurelius).

¹³³ Patzelt, Erna, *Die fränkische Kultur und der Islam: mit besonderer Berücksichtigung der nordischen Entwicklung: eine universalhistorische Studie*, rev. ed., (Aalen 1978), 171–244 for Islamic trade with Francia; 195f. for oriental imports; 232f. for luxury goods and the Papacy.

¹³⁴ Levi della Vida, Giorgio, “Il mondo islamico al tempo di Federico II,” *Atti Conv Int di Studi Federiciani*, (Palermo 1952), 151ff. for ambassadorial contacts with Moslems.

ISLAM-WEST INTERCHANGES 747–802

<i>Date</i>	<i>Name(s)</i>	<i>Destination/location</i>	<i>Purpose/result</i>
691/2 730sff?	Dome of the Rock Umayyads	Jerusalem Jerusalem	Shrine on Haram Palaces adjacent Haram
747ff.	Al-Mahdi	Jerusalem	Rebuilds Al-Aqsa Mosque
762ff. 765	Al-Mansur Pippin the Brief	Baghdad Baghdad	Founds circular city Embassy to Al-Mansur
c.771–5	Franks	Imprisoned in Baghdad	
c.771 770s?	Al-Mansur Circle of Al-Mansur	Jerusalem Syria	Refurbishes Al-Aqsa Builds palace at Ukhaidir
772 772ff.	Al-Mansur Yezid ibn Hatem	Raqqa/Rafiq Kairouan	Builds new city Rebuilds Great Mosque
772–95 774	Pope Hadrian I Charlemagne	Rome Rome and Ravenna	Refurbishes churches Various
775	Abbot Fulrad (under Pippin)	Paris, Saint-Denis	Rebuild is consecrated
777	Ibn Al-Arabi, Barcelona	Paderborn	Embassy
778	Charlemagne across the Alps	Against Caliph of Córdoba	War
c.780	Abd Ar-Rahman I, Córdoba	Aachen	Marriage alliance
785–93 796 793ff.	Abd Ar-Rahman I Harun Al-Rashid Charlemagne	Córdoba Raqqa/Rafiq Aachen	Begins Mezquita Builds palace quarter Begins Palatine Chapel
795ff.	Pope Leo III	Rome	Builds Lateran triclinium
797	Abd Allah, Emir's brother, Córdoba	Aachen, seeking help against Emir	Embassy
797	Alfonso II "El Casto," Oviedo	Aachen	Embassy
797	Aachen	Oviedo, Alfonso II "El Casto"	Embassy
798	Oviedo, from Alfonso II (791–842)	Aachen	Embassy
798	Aachen	Baghdad via Jerusalem	Embassy

Table (*cont.*)

<i>Date</i>	<i>Name(s)</i>	<i>Destination/location</i>	<i>Purpose/result</i>
799	Jerusalem	Aachen	Relics from Jerusalem
800	Harun Al-Rashid	Aachen	Embassy
800	Kairouan, Emir	Aachen	Embassy
	Ibrahim ibn Aghlab		
801	Aachen	Qasr Al-Ma, near Kairouan,	Embassy
801	Ibrahim I	Al-Abbasiya, near Kairouan	Builds royal city
801	Ibrahim I	Kairouan, Dar Al-Imara	Destroys palace
802	Kairouan, Emir	Aachen	Embassy
	Ibrahim ibn Aghlab		
801–2	Baghdad, Harun	Aachen	Embassy
	Al-Rashid		
802	Aachen	Baghdad, Harun Al-Rashid	Embassy
802	Aachen	Throne installed in Palatine Chapel	From Jerusalem?

Explanatory note to the above table: The monuments listed could be extended in time and space, such as rebuildings at Mecca and Medina (earlier 8thC), the Umayyad Mosque at Damascus (706/14/15), the Umayyad palace in the citadel at Amman (earlier 8thC, and probably using antiquities)¹³⁵ and the new city of Anjar (715ff.). There are others which Europeans must have seen (such as Harun's palace quarter at Raqqa, of some 10 sq.km, and supposedly modelled on Baghdad).¹³⁶ Europeans probably did not see, but might have heard, of the "desert palaces" of the second quarter of the 8th century (Mshatta, Khirbat Al-Mafjar, Qasr Al-Hayr East). Al-Mu'tasim built Samarra in 836, which remained the capital until 892, so were embassies received there?

¹³⁵ Northedge, Alastair, *Studies on Roman and Islamic 'Amman*, I, (Oxford 1992), 82, in the arcaded street: There were 26 columns, and only two are missing—testimony that mere stone was not attractive in later centuries.

¹³⁶ Al-Tabari XXVIII.245 for 762–3; XXIX.69 for 771–2.

Aachen as a response to Islam

This section suggests that the Palatine Chapel is an attempt to keep up with the neighbours by resurrecting an architectural typology that affirms Charlemagne's importance in religion as well as in politics, and that its use of prestigious marbles may be predicated as much on Islamic example as on the rebuilding of churches in Rome. Architecture may be viewed as a statement by which Charlemagne proclaims his protection of Christianity, just as elaborate mosques underline the political power and reach of Islam. Only the main Islamic palatial and mosque complexes are listed in the table above, but their number and size are greater than Western structures. Baghdad was supposedly decorated with old marble, although we have no details; but nearly all the other complexes listed in the table survive, some of them altered later, and they all made extensive use of marble. The Palatine chapel was begun in 796 and finished in 814, and its rotunda and dome may well have spelled "east" more than "Ravenna,"¹³⁷ "Holy Sepulchre" rather than "S. Vitale." Hagia Sophia's dome is 55.6m high. At 30.9m, Aachen's dome is a little higher than that of S. Vitale, and substantially less than Al-Mansur's 48.36m-high Green Dome over the palace in Baghdad, construed by his enemies as a deliberate belittling of the Ka'bah.¹³⁸

The Palatine Chapel is not really modelled on S. Vitale in Ravenna, and perhaps seeks some reference to Jerusalem, given Charlemagne's interest in a religious revival with a form well-known as a symbol of Early Christianity. Two of its features might well refer to the *modus operandi* with old marble in Córdoba, namely the use of *ablaq* ('stripey') masonry, and a disregard for some of the rules by which the Romans used columns. *Ablaq*, which is a prominent feature of the original Mezquita, is not otherwise known in Europe before the 11th century. At gallery level, Charlemagne's architect has supplied high bases and impost blocks to support the old columns in their arcading task. This is 'correct,' for a column is a load-bearing element, intended to support a flat entablature or an arch. But move up to the next register, and we find columns supporting the sloping sides of the arches—something the Romans never did even when they played fast-and-loose with columns by

¹³⁷ Heitz, *L'architecture religieuse carolingienne*, 208: an Apocalypse from Trier (town library MS31 fol 2r) shows the seven churches of Asia—which include three rotundas, plus two domed entrance towers.

¹³⁸ Al-Tabari XXVIII.152 for 762–3. It fell in a storm in 941.

using them as decorative rather than structural elements, although the upper windows of Haghia Sophia, if original, have some similarities. At Aachen (and in churches which exactly imitate it, such as Ottmarsheim and Essen), the conclusion must be that the upper-level columns are there for display, not to support the structure. Nevertheless, if *ablaq* derives from the Mezquita, there seems to be no specific source for the column-in-arch arrangement, beyond the desire in both Aachen and Córdoba to display antiquities as prominently as possible.

There are parallels with Islam in ruler symbolism as well as architectural elements. We can take as read the transformation of pagan themes, especially of empire and triumph, into Christian rulership¹³⁹ and symbolism,¹⁴⁰ and recognise easily that the Palatine Chapel seeks to frame Charlemagne in a setting and in a manner familiar from Byzantine ivories. In these the Emperor appears flanked by columns and sometimes behind a low balustrade, which presumably echoes Byzantine practice, and also late Roman practice at Spalato.¹⁴¹ The spectator, standing at ground level in the Chapel and looking up to the enthroned Charlemagne, might have seen him seated behind a set of railings echoed in such ivories, and framed by an arch supported on antique columns¹⁴²—although the throne was also a reliquary, and apparently not used for enthronement ceremonies until 936.¹⁴³ And if the late-antique Roman settings were secular, some Byzantine ones were religious, at least in the 10th century.¹⁴⁴ Although it is not known whether there was some similar throne-room in the palace, why this change or addition? Possibly because the parallels sought are with Jerusalem and with Islamic court ceremonial, even if the materials are from Ravenna and Rome. Is it possible the court could have known that Al-Mahdi, the third Abbasid Caliph, received the oath of loyalty

¹³⁹ Brenk, Beat, "The Imperial heritage of Early Christian art," in Weitzmann, K. ed., *Age of Spirituality: a Symposium*, (New York 1980), 39–52; see 40; Grabar, André, *L'empereur dans l'art byzantin*, (Strasbourg 1936), 39ff.; Erler, A., *Lupa, Lex und Reiterstandbild im mittelalterlichen Rom. Eine rechtsgeschichtliche Studie*, (Wiesbaden 1972).

¹⁴⁰ Schramm, P.E., *Herrschaftszeichen und Staatssymbolik*, 3 vols, (Stuttgart 1954–6).

¹⁴¹ Dyggve, E., "Nouvelles recherches au péristyle du palais de Dioclétien à Split," *Acta ad Archaeologiam et Artium Historiam pertinentia*, I, 1962, 1–6; similar schemes are to be seen in mosaics, such as those in the cupola of the Neonian Baptistery at Ravenna, of circa 449–459 AD.

¹⁴² Cf. sketch in Bullough, *The Age of Charlemagne*, 153.

¹⁴³ Grabar, *L'art de la fin de l'antiquité*, 89, reviewing Schramm, *Herrschaftszeichen und Staatssymbolik*.

¹⁴⁴ *Ibid.*, 89, citing the *Book of Ceremonies*.

in 776 seated in the minbar of the Friday Mosque at Al-Rusafah.¹⁴⁵ Supposedly Charlemagne's throne at Aachen, installed in 802, is of Pentelic marble brought from Jerusalem, its marble slabs taken from the pavement of the Praetorium. This makes it essentially a relic, because of the slabs' connection with the Passion of Christ, over and above the Chapel's connection with Solomon and his temple. Hence its crude appearance (though the back has been altered) might be deliberate artistic fakery to underline that the individual slabs are reconstituted ancient slabs, precious because of their associations. (After all, ancient thrones were not scarce; in Rome, S. Gregorio Magno has one, as does the cloister of S. John Lateran.) There are several examples of marble with prestigious associations. Pilgrims brought marble associated with Christ back from the Holy Land.¹⁴⁶ A 14th-century account says that two slabs of porphyry supposedly from the throne of the Queen of Sheba were incorporated in the Ummayyad Mosque in Damascus.¹⁴⁷ And the great columns for the Süleymaniye may have been selected with fabled associations in mind.¹⁴⁸ In the Christian world, old marble was incorporated into 12th-century papal thrones surely in an attempt to provide such associations.¹⁴⁹ The Dogal throne in S. Pietro in Castello with an Islamic tombstone as the back is surely intended to signal triumph over the ongoing commercial enemy. The sacral nature attributed to some marble buildings is seen in the poem *Aulae Sideriae*, attributed to John Scotus.¹⁵⁰ This hymns an octagonal temple that

¹⁴⁵ Al-Tabari XXIX.183–4. This was a new quarter of Baghdad.

¹⁴⁶ L-B *England*, 2761, to London, dated 1249, "petram albi marmoris...vestigium Salvatoris protendebat."

¹⁴⁷ Brinner, W.M., ed., *Ibn Sasr: A chronicle of Damascus, 1389–1397*, (Berkeley 1963), 161. Gaudefroy-Demombynes, *La Syrie à l'époque des Mamelouks*, (Paris 1923), 39: colonnettes in the mihrab that were from her throne. In Aleppo, the stone on which Abraham sat to milk his cows was also incorporated in a mihrab: cf. Blochet, E., Kamal-ad-Din, "Histoire d'Alep," *Revue de l'Orient Latin* VI 1898, 3–49; see 26. In Genoa an emerald (in fact glass) vase was supposedly a gift of the same queen to Solomon: cf. "Histoire du Patriarche Mar Jabalaha III et du moine Rabban Cauma," *Revue de l'Orient Latin* II 1894, 104–5. In fact, it was booty from the fall of Caesarea in 1101. Wilson, *Survey* 32: in Jerusalem, two columns of the Golden Gate "are, by a Mussulman tradition, said to have been brought on her shoulders by the Queen of Sheba as a present to King Solomon."

¹⁴⁸ Necipoglu-Kafadar, Gulru, "The Süleymaniye complex in Istanbul: an interpretation," *Muqarnas* 3 1985, 92–117; see 103–5 for arguments.

¹⁴⁹ Gandolfo, F., "Reimpiego di sculture antiche nei troni papali del XII secolo," *Atti della Pontificia Accademia Romana di Archeologia: Rendiconti* XLVII, 1974–5, 203–18.

¹⁵⁰ Foussard, M., "Aulae sideriae, vers de Jean Scot au roi Charles," *Cahiers Archéologiques* 21 1971, 78–89; cf. verse 75.

Vieillard-Troikouroff believes to refer to Sainte Marie at Compiègne, an early copy of Aachen by Charles the Bald. Reflecting “the temple in the Heavenly Court where Christ reigns,” it seems likely that the poem’s “lapidum pauimenta gradusque . . . stoas” are a deliberate analogy with the throne at Aachen.¹⁵¹

In early Islam, then, the ruler performed some of his duties actually within the mosque, rather as if he were a Roman judge at one end of a basilica, or a Christian bishop on his throne in the apse of a church. Because of the ruler’s location not only were prayers offered to the ruler in the mosque—the khutba—but the relationship between the ruler and Allah was emphasized. Hence the Umayyad Mosque was “a kind of public annex of the palace in which the caliph would bring together, and thus have contact with, all the members of the community.”¹⁵² In Córdoba the Mezquita was also an element in legitimizing the local Caliphate,¹⁵³ and much later we find the same juxtaposition in Monreale and Palermo, for in the Cappella Palatina the throne (remade) is indeed located directly under mosaics which underline the position of the ruler as the Vicar of Christ on earth. At Aachen the ruler is framed by ancient columns (there are only pillars at ground level, now sheathed in 19th-century marble veneer). There might also be secular parallels from Islam, although the suggestion that the “window of appearance” at Aachen may have had a precedent in the “desert palace” of Qasr Al-Hayr West¹⁵⁴ would benefit from other supporting examples. Other parallels suggest themselves. Charlemagne sometimes had more than one hundred persons bathe with him, says Einhard, and of course bathing was a popular Roman and indeed later Italian practice—and also one that was conspicuously Islamic in Charlemagne’s own day.

If Charlemagne could have taken the setting for his throne in Aachen from Islam rather than Byzantium, then could the new emphasis on letterforms, spurred at least in part by surviving antique inscriptions on marble, also be seen as a response to the unparalleled Islamic enthusiasm for inscriptions on all scales from monumental to textile? This is not

¹⁵¹ Vieillard-Troikouroff, “La chapelle du palais de Charles le Chauve,” 90–1.

¹⁵² Sauvaget, Jean, “The mosque and the palace,” in Bloom, Jonathan M., ed., *Early Islamic Art and Architecture*, (Aldershot 2002), 108–47; 126 for quote.

¹⁵³ *Martinez-Gros, Gabriel, *L'idéologie omeyyade: la construction de la légitimité du califat de Cordoue X^e-XI^e siècles*, (Madrid 1992).

¹⁵⁴ Ferber, Stanley, “Islamic art and the medieval West: the state of the question,” in Ferber, Stanley, ed., *Islam and the Medieval West*, exhibition (Binghamton NY 1975), 67–74; see 68.

to suggest that any stylistic influence flows from Islamic to Christian inscriptions—simply that the making of prestigious inscriptions was stronger in contemporary Islam. Nor, of course, is this to deny the antiquarianism of Carolingian inscriptions as a political statement. To make antiquarian grandeur work, educated clerics and laymen had to come together with available models in a suitable atmosphere, in this case regalo-imperial. No Italian court, not even the Papacy (as far as is known), ever matched the collections of artworks, manuscripts from the Aachen Palace School, or the workshops and scriptoria it influenced in parts of Europe. The manuscripts are particularly important, because in both decoration and letter forms they sought to conjure up an aura of the antique—as, for example, in the great Gospel books.¹⁵⁵ Morison considers the reasons for Charlemagne's interest in classical letter forms as clear as those for Constantinople's avoidance of them: the West wished to conjure up that past so as to forge a solid link with it, whereas the Eastern Emperors considered them un-Christian. In this respect, Charlemagne was following a Western tradition two centuries old, for Gregory the Great's diploma in S. Paolo fuori le Mura, of AD 604, is also in letters "as Roman as he could make them".¹⁵⁶ Could it be that "pagan" forms were used in lettering but not in architecture because mediaeval scholars could not identify Early Christian models, whereas there were plenty for architecture? This seems unlikely, and an aesthetic choice more probable. If the tradition of such antiquarian lettering was not (as far as we know) continuous in Rome, plenty of examples of it nevertheless survive, particularly from the eleventh century onwards, such as the commemorative inscription for Alexander II, of 1070, in S. Giovanni in Laterano; or that recording the renovation of S. Pudenziana by Gregory VII, of 1073, in the eponymous church.¹⁵⁷ What is currently missing is evidence of the translation of lapidary capitals from manuscripts to full-size manifestations in Carolingian buildings, which would strengthen parallels with Islamic fashions.

¹⁵⁵ Such as London, British Museum Harley Ms. 2788; or the Soissons Gospels, now Paris, Bibliothèque Nationale, Lat. 8850: cf. Muetherlich, F., "Die Buchmalerei am Hofe Karls des Grossen," in Braunfels, W., & H. Schnitzler, H., eds., *Karl der Grosse, Lebenswerk und Nachleben, III: Karolingische Kunst*, (Dusseldorf 1966), 9–53.

¹⁵⁶ Morison, S., *Politics and script*, (Oxford 1972), 104.

¹⁵⁷ Both illustrated in Morison, op. cit., figs 126, 129.

Conclusion

Charlemagne's interest in both east and west is strengthened under the Ottonians,¹⁵⁸ and his focal position as the great defender of Christianity is to be seen in the much later Chansons de Geste, where he is shown as a warlord protecting Christianity in the West (the *Chanson de Roland*, and so on) and as a pilgrim not a warrior in the narration of his journey with his knights to Jerusalem.¹⁵⁹ Although connections with Islam in luxury goods¹⁶⁰ and architecture are much clearer after the Millennium, this chapter has explored links over two previous centuries, and suggested that Charlemagne's position as an architectural innovator (including in the use of old marble) melts away when viewed in the context of the many new and often extensive Islamic projects, of which he would have certainly been aware through embassies, and probably through trade. The motor of the Mediterranean economy in this period was Islam, and the increased cadence of building in Western Europe under Charlemagne and Hadrian (then Leo) may well have been enhanced if not provoked by a desire to compete with the many and often vast splendours of Islam, their competitors in religion and in trade.

¹⁵⁸ Walther, Helmut G., "Der gescheiterte Dialog: das ottonische Reich und der Islam," in Zimmermann, Albert, & Craemer-Ruegenberg, Ingrid, eds., *Orientalische Kultur und Europäisches Mittelalter*, (Berlin 1985), 20–44: Johann von Gorze visited Córdoba in 956 (MGH SS IV 335–77; see 369ff.); Granja, Fernando de la, "A propósito de una embajada cristiana en la corte de Abd al-Rahman III," *Al-Andalus*, 39 1/2 1974, 391–406, concludes that even with its mention of Madinat this was a literary exercise, based on that of a Byzantine embassy of 917 from Constantine to the Abbasid Caliph Al-Muqtadir bi-Allah.

¹⁵⁹ Morrissey, Robert John, *Charlemagne and France: a thousand years of mythology*, (Notre Dame IN 2003), 60ff; Picherit, Jean-Louis G., ed., *The journey of Charlemagne to Jerusalem and Constantinople*, (Birmingham, AL 1984), line 113: at Jerusalem "Entrat en un muster de marbre peint a volte"; line 350–1 the Emperor's Palace at Constantinople had "Cent columnes i ad tut de marbre en estant: / Cascune est a fin or neelee devant"; line 387 when the Emperor's Palace started spinning during a storm he had to sit down on the marble floor: "Ne pout ester sur peiz, sur le marbre s'asist."

¹⁶⁰ Grabar, Oleg & André, "L'essor des arts inspirés par les cours princières à la fin du premier millénaire: princes musulmanes et princes chrétiens," *L'Occidente e l'Islam nell'Alto Medioevo*, (Spoleto 1965), 845–92.

*Appendix: Ambassadorial etc. exchanges East and West**From East*

765: embassy to Baghdad and an exchange of diplomatic presents between Pippin the Brief and Al-Mansour¹⁶¹—a mission of Grand Politics which “served to complete a circle of alliances ranging the Pope, the Abbasid Khalifah and the King of the Franks against the Umayyads and Constantinople.”¹⁶²

From West

c.771–5: Franks in Baghdad in c.771–5, because they were imprisoned by the Caliph, to be released on Al-Mahdi’s accession in 775.

777: Ibn Al-Arabi, the Moslem governor of Barcelona, comes to Paderborn to ask the aid of Charlemagne against the caliph of Córdoba,¹⁶³ so that in 778 Charles leads an army across the Pyrenees, and besieges and captures the Christian city of Pamplona. He marches as far as Saragossa, but the local uprisings promised by Al-Arabi do not happen, so that any chance of challenging Córdoba disappears.

c.780: Abd Ar-Rahman I tries to negotiate a marriage alliance with Charlemagne, but nothing comes of it.¹⁶⁴

797: The brother of the emir of Córdoba, Abd Allah, comes to Aachen in 797 seeking Charlemagne’s military help.¹⁶⁵

797: Charlemagne receives an embassy from Alfonso II “El Casto” (791–842): at Oviedo, where he built churches with marble columns and similarly a palace portico; ambassadors go from Aachen to Oviedo in the same year.

798: Ambassadors again from Oviedo, with trophies and Muslim slaves from Alfonso’s capture of Lisbon.¹⁶⁶

¹⁶¹ MGH SS I.470 for *Annals of Hincmar of Reims* in 865: “Carolus missos suos, quos praecedenti anno Cordubam ad Mahomet direxerat, cum multis donis, camelis videlicet, lecta et papilionibus gestantibus, cum diversi generis pannis et multis odoramentis in Compendio recipit.”

¹⁶² Clot, André, *Harun al-Rashid and the world of the Thousand and one nights*, (London 1989); see 100.

¹⁶³ McCormick, *Register*: 188; the emissaries, “Hispano-Arabic grandees,” stayed in Paderborn over four months.

¹⁶⁴ *Ibid.*, 193; the emir died in 788.

¹⁶⁵ *Ibid.*, 236.

¹⁶⁶ Dodds, Jerrilynn, *Architecture and ideology in early medieval Spain*, (University Park 1994), 37, and 140 note 62 for C’s relations with Alfonso.

From East

798: Charlemagne sends an embassy (via Jerusalem, and perhaps on a Venetian ship)¹⁶⁷ to Baghdad, to the court of the Caliph Harun Al-Rashid. Charlemagne and the Caliph had wide-ranging political interests in common,¹⁶⁸ not least warring against Byzantium. The Caliph was to raid Cyprus and Rhodes in 805 and 807 respectively.

799: A monk arrives at Aix sent by George, Patriarch of Jerusalem, in response to Charlemagne's sending of envoys and money there. He carries relics from the Holy Sepulchre as a gift.¹⁶⁹

800: Envoys to Charlemagne from Harun Al-Rashid, who perhaps saw him as a possible wedge against Byzantium.¹⁷⁰ The embassy is in any case a recognition of Charlemagne's growing importance, and but one part of the growing trade network of the Carolingians.¹⁷¹

From North Africa

800: Embassy from the emir of Kairouan, Ibrahim ibn Aghlab, who expresses the desire for formal relations with "someone who, from across the Mediterranean, looked very much like the man of the new era."¹⁷²

From West

801: Charlemagne's envoys go to the palace of Al-Rusafa at Sabra (and 2.5km from Kairouan) to deliver gifts destined for Harun Al-Rashid, and to collect the body of S. Cyprian. Sabra had been renamed Al-Abassiyya in 800, as a brand-new royal city. Charlemagne supposedly orders his envoys to visit Carthage en route.¹⁷³

¹⁶⁷ McCormick, *Register* 238.

¹⁶⁸ Musca, Giosuè, *Carlo Magno ed Harun al Rashid*, (Bari 1963), 1 for an account of franco-abbasid relations, their religious, political and economic motives; with an appendix of sources.

¹⁶⁹ McCormick, *Register* 244, 245, 248.

¹⁷⁰ Not to mention Córdoba: Reinaud, *Muslim colonies in France*, 101–2 for the enmity of Baghdad and Córdoba.

¹⁷¹ McCormick, "New light," 38–9 & notes 47–8.

¹⁷² Clot, André, *Harun al-Rashid*, 106ff., 250–1 for summary of Charlemagne's relations with Harun; Clot notes 110 their "shared hostility to Córdoba and distrust of Byzantium."

¹⁷³ Reinaud, *Muslim colonies in France*, 127, but does not cite a source. A comparable embassy from Harun to Nicephorus included dates, raisins, hunting dogs and falcons, as well as perfume and textiles: Al-Tabari XXX.264.

802: Ibrahim the Aghlabite supposedly sends return ambassadors to Charlemagne, says Reinaud without refs: from Kairouan or from Sabra?

From East

801–2: The result of Charlemagne's request to Baghdad produces not only the famous elephant (which must have been tricky to procure), and a long list of sumptuous textiles, an ingenious water-clock and two tall brass candlesticks. They land in Pisa in 801, and arrive in Aachen the following year.¹⁷⁴

802: Charlemagne responds with another embassy to Baghdad, occasioning new ambassadors from Harun and one from Tomas, successor to Patriarch George in Jerusalem.

¹⁷⁴ S  nac, Philippe, "Les carolingiens et le califat abbaside (VIII^e–IX^e si  cles)," *Studia Islamica* 95 2002, 37–56; McCormick, *Register* 254, and 271, 277 for the 806/7 Baghdad embassy; and cf. Einhard *Annals* for 801, MGH SS I.190; *ibid.* 194 for 807 for the presents that arrived, including the water clock, textiles, and two very large candelabra.

CHAPTER NINE

ITALY AND SICILY

Introduction

This chapter explores what re-use meant to commissioners and builders in Italy and Sicily, and how such meaning(s) may have changed over time. After a brief review of the place of marble supply in architectural revivals in Rome (which set the tenor for the rest of the peninsula), it examines the impact of marble on centres to its north and south, and over the Straits in Sicily. It will conclude that the use of marble was not continuous, but depended (in those cases for which we have some documentation) on individuals entranced by its properties, following Early Christian and Byzantine precedent, and possibly by some kind of politico-religious agenda.¹ The context is the startling variety of marbles re-used; and we may hope that the approach of Bugini & Folli to Lombardy (survey by stone, ordered by place, and divided up in-situ-scavo-museo-riuso—and demonstrating cipollino as by far the most popular in re-use) will be pursued elsewhere.²

Urbanism in Italy shows several centuries of near-crisis, a downturn in aristocratic building, and a perhaps natural propensity for eulogising the past rather than describing the present.³ Rome is, today, the centre of the study of the antique,⁴ not just because she certainly contained more

¹ *Christie, *From Constantine to Charlemagne*, 78f. for useful dot-points on churches as an aid to understanding the period, including devotion, investment & patronage, pilgrimage, burial, epitaphs & dedications, and pride in stone-buildings.

² Bugini, Roberto, & Folli, Luisa, “Sull’uso di marmi colorati antichi in Lombardia (Italia Settentrionale),” *Marmora* I 2005, 145–68.

³ Wickham: *Framing*, 644ff; he instances the 739 *Versum de mediolano civitate*, which says how great Milan was (“firme stratum silice”)—when all the diggers have found is beaten earth; again, 213: the *Memoratorium de mercedibus comacinatorum* lists impressive-sounding houses, especially in Ravenna, but “the display which is clear in these texts has not been found archaeologically, except in churches.” Zanna, P., “Descriptiones urbium and elegy in Latin and vernacular in the early Middle Ages,” *Studi medievali* series 3 32 1991, 523–96; 529: concern in the *Versus de destructione Aquileiae* to emphasize the contrast before and after the city’s destruction.

⁴ Alessio Angeli, Fabrizio, & Berti, Elisabetta, *Bibliografia di Roma medioevale*, online at <http://www.medioevo.roma.it/bibliografia/>, with 3,000 items up to 2002.

antiquities per cubic metre (and those often of better quality, even after the depredations of Renaissance and Baroque popes) than any other city, but also because more northerly cities, prosecuting a population expansion in which Rome did not share, certainly rediscovered thereby some antiquities. However, they destroyed most of the evidence of their antique past in the process, sometimes using it to build their important monuments, especially churches. In the countryside (remember all those villas!), La Rocca characterizes the 10th century, a period when land came into the possession of local nobles, as one when intensive cultivation and ploughing brought antiquities to light.⁵

Sometimes an interest in antiquities is not illuminated by knowledge about them, as when the *Chronicon Novaliciense* records that in the 8thC the patrician Abbo “ex candidissimis marmoribus et diversis lapidum generibus mire pulchritudinis et altitudinis elevari archum in Sigusina civitate,”⁶ and supposedly wrote on it his local donations. But this is the Arch of Augustus at Susa, so the chronicler either did not see the inscription or, if he did, could not read it—so low marks for epigraphy as well as accurate knowledge of past monuments. Nevertheless, “the past as evident in the monuments was visible to everybody and was therefore seen as a guarantee of prestige and authenticity.”⁷ During the population upturn of the 11th century, the monks of Novalesa were given by Marquis Oddo II the ancient abandoned city of Pollenzo, obviously for building materials.⁸ Indeed, the following overview will concentrate on large monuments, but re-use is constant in smaller cities such as Susa,⁹ or small valleys in the Romagna.¹⁰ Thus Rome was not always the natural source of marble antiquities in the Middle Ages, because the Papacy and other lords were as jealous of such materials as Cassiodorus had been. Those other population centres interested in antiquities, as well as sometimes importing quantities from Rome and Ostia, often had them available on their doorsteps as well.¹¹

⁵ La Rocca, Cristina, “Using the Roman past. Abandoned towns and local power in eleventh-century Piedmont,” *Early Medieval Europe* 5 1996, 45–69; see 60ff.

⁶ Alessio, G.C., ed., *Cronaca di Novalesa*, (Turin 1982), II.18, 120.

⁷ La Rocca, “Using the Roman past,” 45.

⁸ *Ibid.*, 46.

⁹ Mollo, Rosanna, “Anche in antico...” at http://www.regione.vda.it/territorio/environment/200426/2004-26_14.ASP.

¹⁰ Santoro Bianchi, Sara, “Persistenza e reimpiego in alcune pievi della Collina Sarsinate,” in Chevallier, R., ed., *Presence de l'Architecture et de l'Urbanisme romains*, (Paris 1983), 127–37.

¹¹ Jatta, Giovanni, *Cenno storico sull'antichissima città di Ruvo*, (Naples 1844), 101: one

Paul Binski writes of Europe in 1200 as “a magnificent archive of the cultural activity of the Roman empire,” with monastic patrons at Montecassino, Saint-Denis, Fleury and elsewhere viewing the landscape as a storehouse of re-useable materials.¹² The Normans, great builders in Italy and Sicily,¹³ probably used such antiquities for political purposes:¹⁴ Pensabene believes the Lombard dukes in Campania passed the vogue on to the Normans, whence it spread north.¹⁵

Early Christian revivals and the Liber Pontificalis

Sumptuous Early Christian basilicas set a standard which could never be matched because, by the very act of building, they drastically depleted the remaining re-usable stocks. The supply of these, even in Rome, was far from inexhaustible, as may be seen from the mix-and-match-ing necessary for later Early Christian imitations, such as S. Agnese, at both ground and gallery levels.¹⁶ Such shortage helped provoke the cutting of new decorative elements—programmatic antiquarianism, indeed, discussed by Pensabene for the 11th century.¹⁷

The re-use of marble in Rome itself rises and falls by the century, for reasons many of which are unclear.¹⁸ In the sixth and seventh centuries only small churches, some of them with Byzantine characteristics (S. Agnese), are built. In the next two centuries the churches are still small, but some (such as S. Prassede) look back to Early Christian plans, argu-

family had a garden near the convent of S. Angelo at Ruvo, but there were so many stones from the antique site that they found it impossible to clear them all, even after building walls with them.

¹² Binski, Paul, in Abulafia, David, ed., *New Cambridge Medieval History*, (Cambridge 1999), 100.

¹³ Pensabene, *Contributo*, 77ff. for specific monuments.

¹⁴ Lachenal, Lucilla de, “Reimpiego dell’antico e ideologia politica fra Roma e l’Italia meridionale in età normanna,” in Giannattasio, Bianca Maria, ed., *Atti X giornata archeologica: Il passato riproposto: Continuità e recupero dall’antichità ad oggi*, (Genoa 1999), 93–129.

¹⁵ Pensabene, Patrizio, “Marmi e reimpiego nella Campania di età romana”, *Acta Apuana* IV–V 2005–2006, 9–28.

¹⁶ Hansen, *Eloquence of appropriation*, fig. 67; 124ff. for the “principle” of symmetry.

¹⁷ Pensabene, “Reimpiego,” 62 for the new porches for S. Lorenzo in Lucina (1130: note the material from the earlier church), S. Giovanni a Porta Latina (1191) and S. Giorgio in Velabro (late XII).

¹⁸ *Claussen, Peter Cornelius, “Marmo e splendore: architettura, arredo liturgici, spoliae,” in Andoloro, Maria, & Romano, Serena, eds., *Arte e iconografia a Roma da Costantino a Cola di Rienzo*, (Milan 2000), 193–225 for overview.

ably part of a papal strategy.¹⁹ This does not mean that large quantities of luxurious marble were available. For example, the nave of S. Prassede is largely Elban granite; there are 10 columns in S. Giorgio in Velabro, and 12 in S. Gregorio Magno.²⁰ The S. Zeno Chapel (Paschal I 817–24) is tiny and surely a misleading exception: it certainly has exotic and *recherché* marble varieties, but in small quantities, and with much jigsaw-patching of the veneers.²¹ We should bear in mind that blocks of exotic marble were visible and available at Ostia/Porto,²² and may well have been employed during our period. Some, even of great beauty, were certainly piled into mediaeval structures, such as the tower under the Aventine the demolition of which in 1705 provided alabasters and other fine marbles sufficient for an altar in the Pantheon.²³ No larger structures of equivalent richness have survived, or indeed are known to have existed in Rome. Meneghini suggests that the 8th-century rupture with Byzantium also freed up old marbles, since Imperial authority over them was no longer recognised.²⁴ Little is known about the tenth century, but what we do know reflects the desire for quality but the imperative to use disparate materials. Thus the luxurious S. Saba displayed 14 columns (from an 8th or 9th-century rebuild?) which are of no fewer than six different marbles.²⁵ And there are also two bases of green porphyry, serpentine capitals in the ciborium, and two columns of quartz-diorite (“granite della colonna”). The narthex portico, now much altered, once had four *giallo antico* columns and two porphyry ones with Tetrachic busts which were carried off by Pius VI (1775–99). There was a big spurt in construction and marble use in the eleventh century, and a yet bigger one in the twelfth to thirteenth centuries.

The 8th–9th-century upsurge in building activity was not just in

¹⁹ Emerick, Judson J., “Altars personified: the cult of the saints and the chapel system in Pope Paschal I’s S. Prassede (817–819),” in Emerick, Judson J., & Deliyannis, Deborah M. eds., *Archaeology in architecture: studies in honor of Cecil L. Striker* (Mainz 2005), 43–63.

²⁰ Lazzarini, Lorenzo, “Des pierres pour l’éternité. Les granits utilisés dans l’antiquité classique,” *Les Dossiers d’archéologie* 173 1992, 58–67.

²¹ Black porphyry, barud granite, and Mons Claudianus; wall veneer of brocatello, cipollino and of a red marble (has this been identified?); the floor includes porphyry red and green, *giallo antico*, porta santa and pavonazzetto.

²² *Pensabene, Patrizio, *Le vie del marmo. I blocchi di cava di Roma e di Ostia: il fenomeno del marmo nella Roma antica*, (Rome 1994), 11ff. for deposits visible in the 16th century. 20f. for broken columns, reworkings, and attempts to repair such valuable items.

²³ Gnoli, *Marmora*, 46–7.

²⁴ Meneghini, *Edilizia pubblica*, introduction.

²⁵ Pensabene, “*Reimpiego*,” 60–1.

Rome, but also elsewhere in Italy and the Carolingian possessions, such as the earlier S. Satiro in Milan. This not only shows the way for later and greater surges, but underscores the economic development of early mediaeval Rome,²⁶ reflected in the *Liber Pontificalis* entries for Popes Hadrian and Leo. Although its contents can be annoyingly tight-lipped and interpretation of its formulaic and laconic phrases difficult,²⁷ it is all we have apart from the few remains on and under the ground, and is worth a thousand Glabers. Was the revival of architecture in Rome dependent on a population upsurge, or just on building-mad popes? Elsewhere, Hodges is adamant that there is “no doubting that by the seventh century places such as Brescia, Milan, Naples, Otranto, Pescara and Verona were reduced to non-urban proportions.” But he is equally certain that archaeology “clearly shows that Rome was awakened with Charlemagne’s visit at Easter 774.”²⁸ For others of us, the glass of archaeology reveals less that might connect finds with such historical events.

Indeed, any comparison of the *Liber Pontificalis* with what survives is difficult,²⁹ and has provoked a regrettable tendency (casting aside its clearly formulaic repetitions and perhaps exaggerations) to use the LP to explicate the monuments rather than vice versa. But this is the way with “documentation.” Coates-Stephens is suitably sceptical of the LP, pointing out that “the tenth century—a period generally considered entirely bereft of architecture in Rome—coincides exactly with the complete disappearance of the *Liber Pontificalis*.” He underlines the importance and the difficulty of being able to distinguish in the LP between restoration and new construction,³⁰ and this same problem dogs Santangeli’s charting of intra- and extra-urban building and its peaks and troughs, because the answers can never be clear, even after

²⁶ *Delogu, Paolo, “La storia economica di Roma nell’alto medioevo. Introduzione al seminario,” in Paroli, L., & Delogu, P., eds., *La storia economica di Roma nell’alto Medioevo alla luce dei recenti scavi archeologici*, (Florence 1993), 11ff.;—an *état de la question*.

²⁷ Bauer, *Das Bild der Stadt Rom*, 27–38; *ibid.*, “Il rinnovamento di Roma sotto Adriano I alla luce del *Liber Pontificalis*. Immagine e realtà,” in *Geertman, Herman, ed., *Atti del colloquio internazionale il “Liber pontificalis” e la storia materiale*, (Rome 2003), 189–203; see 200: “cioè... eterno” un’immagine della città di Roma che sotto Adriano era stata trasferita in una situazione ideale che doveva durare in eterno.

²⁸ Hodges, Richard, *Towns and trade in the age of Charlemagne*, (London 2000), 60, 55.

²⁹ Bauer, *Das Bild der Stadt Rom*, 181–205.

³⁰ Coates-Stephens, Robert, “Dark age architecture in Rome,” *PBSR* LXV 1997, 176–232; see 180–1; and 226–7, his Table 2, where he tabulates the LP against independent evidence.

digging.³¹ The LP's very existence and volubility for certain reigns has produced a consensus that it was Early Christian models that were often used for new constructions, heavily dependent on marble like their models. Here architecture can indeed be claimed to buttress politics. McClendon suggests that "Paschal promoted the revival of early Christian architecture in order to underscore, indeed to celebrate, his fervent belief in the sovereignty of the Papal State and its independence from Frankish rule."³² For this reason the plan of S. Prassede revives that of Old St Peter's, and provides a setting for relics brought from the catacombs.³³ The new and newly rebuilt churches then had to be furnished, and Hodges notes from the LP a huge investment in gold, silver and silks "which, alongside the new churches, cloisters and private buildings, marked a real renaissance during the papacies of Hadrian I and Leo III."³⁴ Reworking of old stocks was common.³⁵ As for the increased pace of building (and hence use of marble) Delogu counts 20 structural restorations of churches 687–722, 51 under Hadrian I, 23 under Leo III, and 13 from 816–68. There are very few complete rebuildings, and he concludes that "the Carolingian political structure contributed to the prosperity of the papacy not only by ensuring the peaceful enjoyment of its rents and rights in an enlarged territory but also by supplying the popes with precious metals."³⁶ Again, "restoration" can mean almost anything.

But for 9th-century Rome, the lineaments of church-building can be traced by augmenting the LP with external evidence. According

³¹ Santangeli, Valenzani, Riccardo, "Il paesaggio urbano altomedievale nei testi del Liber Pontificalis," in *Geertman, Herman, ed., Atti del colloquio internazionale il "Liber pontificalis" e la storia materiale*, (Rome 2003), 225–34:—"ruralization of the urban landscape," plus a bar-chart (230) showing restoration work: extra- and intra-urban restorations only surpass 10 in 700–57 (22 in all), in 757–95 (48, of which 11 are extra-urban), in 795–844 (34, of which 11 extra-urban), and then big slump for 844–91 (10, 4 extra-urban).

³² McClendon, Charles B., "Louis the Pious, Rome, and Constantinople," in Striker, Cecil L., & Ackerman, James, eds., *Architectural studies in memory of Richard Krautheimer*, (Mainz 1996), 103–6: see 105.

³³ LP II.54: "mirabiliter renovans construxerat Sta Prassede."

³⁴ Hodges, *Towns and trade*, 121.

³⁵ *Rilavorazione*, cat. 7 for recut 3rdC architrave for the San Zeno Chapel, Sta Prassede, of 817–24; *Rilavorazione*, cat. 10 for 4 recut (and very impressive) mensole at the SS Quattro Coronati, Oratorio di S. Barbara, of 847–55.

³⁶ Delogu, Paolo, "The rebirth of Rome in the 8th and 9th centuries," in Hodges, Richard, & Hobley, Brian, *The rebirth of towns in the West AD 700–1050*, (London 1988), 32–42: see 37–8, Table 1 & 38–40 for lists to go with Table 1, of enterprises recorded in the LP.

to Coates-Stephens' calculations,³⁷ there seem to have been 15 new churches in the period 640–772, 18 for 772–860 and 17 for the period 860–1015, these last perhaps minor ones. But for the 772–860 span, these included large, prestigious and rich foundations such as S. Giorgio in Velabro (newly built in the earlier period),³⁸ SM in Cosmedin, S. Prassede, S. Cecilia, and the SS. Quattro Coronati. For such work, he observes, huge amounts of old material were needed, suggesting that these came from “the wide-scale demolition of Roman monuments.”³⁹ This can be checked against the churches today: S. Prassede has old columns and some entablatures, as well as the S. Zeno Chapel. SM in Cosmedin has a more miscellaneous collection, but S. Cecilia has a splendid portico with some veneer, and a richly-veneered (restored) apse.⁴⁰ In a sense, then, many surviving Roman pagan monuments (and no doubt some dilapidated Early Christian ones as well) were standing stockpiles-in-posse just waiting for periods of economic confidence, social stability, envious competition or pious enthusiasm to become material-in-esse. They also awaited confident palace-owners like Nicola de'Crescenzi to proclaim their splendour when re-used.⁴¹ The point is worth labouring: it is not the existence of marble monuments that impels people to rebuild using their materials, because building is a question of economics, political stability and fashion, not just opportunity.

³⁷ Coates-Stephens, “Dark age architecture in Rome,” 222, Table 1.

³⁸ —Which presumably provided the old materials for its later façade, since dismantled. Cf. Turco, Maria Grazia, “The church of St. George in Velabrum in Rome: techniques of construction, materials and historical transformations,” in Huerta, Santiago, ed., *Proc First Int Cong on Construction History*, (Madrid 2003), III, 2009–13: an 1824 inventory includes “due colonette di marmo bianco, con capitelli gotici antichi, e base e pilastro di stucco...incassate nel med[esim]o muro poco alte dal pavimento due antichissime cancellate di marmo che erano sepolte l’una sopra la porta grande della Chiesa, e l’altra verso l’arco degli Argentieri”—and the circular marble frame of what was an oculus window.

³⁹ Coates-Stephens, “Dark age architecture in Rome,” 223.

⁴⁰ Other examples include S. Agnese fuori le Mura (625–638), S. Giorgio in Velabro (827–849?) and the Cappella di S. Venanzio (640–642?) at the Lateran Baptistery; in the last, the proconnesian revêtement with horizontal veining provides a Byzantinising touch.

⁴¹ Over the subsidiary entrance: VOS QUI TRANSITIS HEC OPTIMA TECTA QUIRITIS / HAC TEMPTATE DOMO OS NICOLAUS HOMO; over the main door, part of the long inscription states his motive: HANC NON TAM / VANA COEGIT GLORIA QUAM ROME VETEREM RENOVARE DECOREM.

Making do, but aesthetically: revivals in Rome after the millennium

Direct comparisons with earlier centuries were also intended by the marbled aspect of the churches newly built after the Millennium.⁴² These were often reinforced by imaginative literary links—a mode that outlasts even the Italian Renaissance. At various dates not only Constantinople, but also Trier, Milan, Tournai, Pavia and Pisa compared themselves in their renascence to Rome of old. Thus revivalism in earlier Romanesque building connects with the availability and re-use of marble, as in Hildebert of Lavardin's (1056–1133) famous poem beginning “Par tibi, Roma, nihil, cum sis prope tota ruina.”⁴³ Occasionally, marble-rich ruins could be converted into sumptuous palazzi, as with the Casa dei Cavalieri di Rodi, in Rome, where the caryatids and trabeation of the Forum of Augustus make an imposing room decoration.⁴⁴ This structure, sitting on top of one of the most luxurious and presumably inaccessible collections of marble in all Rome, has frescoes (9thC) imitating opus sectile.

How short was old marble after the Millennium? Marangoni was amazed by the surviving quantities of columns in the 18th century,⁴⁵ and they were still being used in new buildings in the mid-16th century.⁴⁶ But the problem was that no coherent and unbroken column-sets survived even into the 12th century, hence perhaps also the greater take-up of granite shafts.⁴⁷ What strategies were adopted to re-use, and how

⁴² Toubert, Hélène, “Le renouveau paleochrétien à Rome au début du XII^e siècle,” *Cahiers Archéologiques* 20 1970, 99–154.

⁴³ Moos, Peter von, *Hildebert von Lavardin 1056–1133: Humanitas an der Schwelle des hofischen Zeitalters*, (Stuttgart 1965), 354; this continues lines 23–8: Tantum restat adhuc, tantum ruit, ut neque pars stans / Equari possit, diruta nec refeci. / Confer opes marmorque novum, superumque favorem, / Artificum vigilent in nova facta manus, / Non tamen aut fieri par stanti machina muro, / Aut restauri sola ruina potest. Cf. also Hekscher, W.S., “Relics of pagan antiquity in mediaeval settings,” *JWCI* 1.3 1938, 204–220: see 207ff.

⁴⁴ Danesi Squarzina, Silvia, “La casa dei cavalieri di Rodi: architettura e decorazione,” in Danesi Squarzina, Silvia, ed., *Roma centro ideale della cultura dell'antico nei secoli XV e XVI*, (Rome 1985), 102–42.

⁴⁵ Marangoni, *Delle cose gentilesche*, 333: “dopo tanti saccheggiamenti di Roma, a quelle che tutto giorno si scava dalle ruine antiche, ed a quelle, che rotte, in piu parte veggoni piantate per ogni via, in ogni Palagio, e per ogni cantone della Citta che tutte unite insieme formarennerre una selva intera, e quasi che immensa.”

⁴⁶ Bosman, Lex, “Spolia and coloured marble in sepulchral monuments in Rome, Florence and Bosco Marengo. Designs by Dosio and Vasari,” *Mitt. KHI Florenz* 49.3 2005, 353–76.

⁴⁷ Van Stekelenburg, Albert V. “Some statistics regarding the spolia columns in

“aesthetic” did these need to be if available stocks were in short supply and always greater demand? The answers are not always clear. Why, for example, does SM Antiqua decorate the walls with fresco imitating marble, when there were surely supplies of veneer within 200 metres?⁴⁸ More puzzling is the earlier S. Clemente (by John II, 533–5). This was rich in old marble,⁴⁹ and Claridge emphasizes the quality and variety of the columns, suggesting they might have been used direct from a late C3 AD building on this site.⁵⁰ Ruined by Robert the Guiscard, this church was filled in with rubble and a new church built above it also with old materials, and sections of paleochristian inscriptions used as framings for the floor.⁵¹ The lower church was rediscovered only in the mid-19th century. The upper church re-used from the lower church the marble furniture of 19 plutei, three transennae and 31 pilasters, with two of the plutei updated by the addition of coloured marbles, and it adds an extensive cosmatesque floor, including porphyry and giallo antico. Some important elements, surely recognised in first if not second use as having Constantinopolitan connections,⁵² were re-used.⁵³ But when the Early Christian Baptistry had been so comprehensively stripped,⁵⁴ why were so many fine marble monoliths⁵⁵ left below, where they can be examined today? Incompatible heights? In those places in the lower church where the columns are fragmentary, brick infill supports the entablature and hence the upper church almost directly above: so why not brick in everything, remove the columns, and re-use them in the

the Christian basilicas of Rome,” *Mededelingen van het Nederlands Instituut te Rome* 51/52 1992/93, 114–21. In 1553 the column suites of the cemetery basilica of S. Lorenzo outside Ravenna were taken to Rome: *Ricci, G., “Ravenna spogliata fra tardo medioevo e prima età moderna,” *Quaderni Storici* 71 1989, 537–61; see 537.

⁴⁸ Bauer, *Das Bild der Stadt Rom*, 51–2.

⁴⁹ *Ibid.*, 134ff.

⁵⁰ Claridge, *Rome*, 284 & 286: “The column shafts on the entrance side (now only three but originally four) were of the rare Carystian black and each end, and Chian pink/grey in the middle,” and she remarks especially on a “beautiful monolith of purple/white and yellow marble breccia from Skyros.”

⁵¹ Del Bufalo, *Marbres de couleur*, 88.

⁵² Guiglia Guidobaldi, Alessandra, & Barsanti, Claudia, *Santa Sofia di Costantinopoli. L'arredo marmoreo della grande chiesa giustiniana*, (Vatican City 2004), 214–7 for links to Hagia Sophia.

⁵³ *Rilavorazione*, cats 30–1.

⁵⁴ Guidobaldi, Federico. “Gli scavi del 1993–95 nella Basilica di S. Clemente a Roma e la scoperta del Battistero Paleocristiano. Nota preliminare,” *Rivista di Archeologia Cristiana* 73 1997, 459–91; see 483–86.

⁵⁵ 17 in total: 7 of 8 in the north colonnade, 5 of 8 in the south colonnade, 2 of 6 on the west side of the four-sided portico, and 3 of 4 of the entrance. Only 8 are pairs.

upper church? We know that good columns were scarce by this date, for the Romanesque church set within the Curia uses capitals, columns and bases which are all disparate.⁵⁶ But middling ones cannot have been very scarce, since the atrium of S. Clemente also has arcades with a full complement of albeit disparate capitals, shafts and bases.

Yet the greater the number of churches built, and the greater the concern for matching materials, the fewer were suitable and available for the task. Claussen instances⁵⁷ S. Crisogono (1123–30) with its echoes of the Lateran basilica and Old S. Peter's, its old capitals and marble architrave over alternating red and grey granite shafts, with very large porphyry columns indicating the triumphal arch. He sees the same care in choice at S. Maria in Trastevere (1150–8?), with its nearly uniform granite columns, and Ionic capitals mainly from the Baths of Caracalla. He lists those churches which have architraves supported by Ionic capitals: S. Lorenzo in Lucina, S. Cecilia, SS. Vincenzo ed Anastasio, SS. Giovanni e Paolo, S. Giorgio in Velabro and S. Lorenzo fuori le Mura, as well as S. Crisogono and S. Maria in Trastevere, remarking that “such architecture had not been built since a similarly classicizing vogue had created the nave of Santa Maria Maggiore in the fifth century”⁵⁸—although we should note that the untidy capitals of SM Maggiore were replaced, and the columns and entablature “uniformed up” by Fuga in 1746–50.⁵⁹ Indeed, such is the new care for uniformity that old capitals no longer suffice, and the masons often carve their own. This period—the middle of the 12th century—is in date very nearly the cusp between old-only and newly-quarried material. May we assume that the newly professional Magistri Doctissimi Romani (adopted as a title of one of Claussen's books) simply could not find

⁵⁶ Mancini, Adele, “La chiesa medievale di S. Adriano nel Foro Romano,” *Atti della Pontificia Accademia romana di archeologia* Serie 3, Rendiconti XL 1967–8, 191–245, figs 14–15. Honorius I early 7th-century conversion apparently left the marble walls veneers intact “in spite of their profane significance:” cf. Lanciani *Wanderings*, 29–30.

⁵⁷ Claussen, “Marmi antichi,” 72; *ibid.*, *“Renovatio Romae. Erneuerungsphasen römischer Architektur im 11. und 12. Jahrhundert,” in Schimmelpfennig, Bernhard, & Schmutge, Ludwig, eds., *Rom in hohen Mittelalter. Studien zu den Romvorstellungen und zur Rompolitik vom 10. bis zum 12. Jahrhundert*, (Sigmaringen 1992), 87–125; 84ff. for the renovation work of Paschal II; 99ff. for concepts of renovatio and triumph.

⁵⁸ Kitzinger, Ernst, “The arts as aspects of a Renaissance,” in Benson, Robert L., & Constable, Giles, eds., *Renaissance and renewal in the twelfth century*, (Oxford 1982), 637–70: 639 for quote re. SM in Trastevere.

⁵⁹ At S. Prassede (1594/1605) and S. Lorenzo in Piscibus (1672), the (presumably delapidated) capitals were chiselled back to the drums in order to receive stucco updates.

sufficient good old capitals? Might this have led them to carve Ionic capitals from existing blocks? In other words, rather than revivalism, is the recourse to the Ionic because they require less work than Corinthian capitals, essentially the same phenomenon as the miniaturisation of their decorative marble work?

Marble pavements today represent the largest surviving area of old marbles still in place, but their designs do not resurrect Early Christian church floors except very generally, because all of them have been relaid, sometimes more than once, in a move from large marble slabs to small tesserae. Intricate and attractive as these are, they are scarcely on the same level of sophistication as Mamluk jigsaw-cutting of marble—and, what is more, the miniaturisation underlines a scarcity of materials at a period when Egypt and Syria were cutting extravagantly large blocks of marble for their porticoes and mihrabs. The Guidobaldi point out just how easily pavements and even wall panels could be reconstituted into something new, and they suggest there were sometimes four or five reincarnations until the “massima frammentazione” of the Cosmati which was the end of the road.⁶⁰ Was this changing fashion, partly predicated upon Byzantium? Or because the largish pieces needed (cf. the Pantheon, of red porphyry and yellow Numidian disks with borders of Phrygian purple and white) were no longer available? Claussen estimates that hundreds of churches were “cosmatesqued” from the 12th century,⁶¹ in a movement Pensabene and Pomponi believe was part of an ideal program to restore late antique forms,⁶² generally using old materials to do so. Certainly style accommodates diminishing supplies, as we shall see in Mamluk Cairo, where Ibn Khaldun describes the cycle of constant re-use leading to miniaturization in terms not very different from those of the Guidobaldi.

The end of our period by no means sees the end of re-use in Rome. But as everywhere the supply was finite. *Roma quanta fuit, ipsa ruina*

⁶⁰ Guidobaldi, F. & A.G., *Pavimenti marmorei di Roma dal IV al IX secolo*, (Città del Vaticano 1983), 518ff.: “è forse proprio questo uno dei motivi della così accentuata sopravvivenza dei pavimenti cosmateschi nei quali in pratica solo i grandi dischi si prestavano ad un facile riutilizzo.”

⁶¹ Claussen, P.C., “Marmi antichi nel medioevo romano. L’arte dei Cosmati,” in Borghini, G., ed., *Marmi antichi*, (Rome 1989), 65–79; see 71.

⁶² Pensabene, P., & Pomponi, M., “Contributi per una ricerca sul reimpiego e il ‘recupero’ dell’Antico nel Medioevo, 2: I portici cosmateschi a Roma,” *Rivista dell’Istituto nazionale d’archeologia e storia dell’arte* 14/15 1991/92, 305–46—including a renewed popularity for Ionic capitals, predicated on the example of SM Maggiore.

docet—yet antiquities were disappearing at an accelerating rate, as the make-and-mend patchwork constructions from the 12th century onward make clear. Indeed, Rome's 14th-century statutes include a chapter entitled "Of the ancient buildings, which are not to be pulled down." The penalty was heavy fines, for "antique buildings represent an ornament for the city in the public interest."⁶³ It was too late, for new buildings, marble-cutting and lime burning had already taken a large toll.⁶⁴ Stone-masons were against the breaking of marble in order to provide lime, and forbade it on pain of heavy fines in their statutes of 1406 and again in 1598.⁶⁵ Of course this was not to protect the monuments, but the raw materials of their livelihood, because re-use was always cheaper and more convenient than quarrying. If his letters were more than just scholarly exercises, Cassiodorus might have been doing much the same for his master. And in spite of the enormous deprivations caused by the building of the New S. Peter's, these apparently did not occasion any change in Papal policy.⁶⁶ In 14th-century Italy, it was certainly cheaper to scavenge than to fresh-quarry—witness the teams sent out from Orvieto (to Rome, Veio, and the Villa Domitiana at Albano) from the 1320s to the 1370s—the single year 1369/70 yielding 93,560 pounds of marble, or over 42 metric tonnes.⁶⁷ The façade contains cipollino and Thasos, and the first reference to supply from Carrara is in 1337, so spoliating went hand-in-hand with quarrying for the black-and-white travertine and macinegno of the façade.⁶⁸ Old marble was still going south in the same period, for example to Naples.⁶⁹

⁶³ Re, C., *Statuti della città di Roma dal secolo 14*, (Rome 1883), 2.191.

⁶⁴ Lanciani, Rodolfo, *The destruction of ancient Rome; a sketch of the history of the monuments*, (New York 1901), chap XVI, "Marble-cutters and lime-burners of mediaeval and Renaissance Rome."

⁶⁵ Rodocanachi, E., "Les anciens monuments de Rome du 15e au 18e siècle: attitude du Saint Siège et du Conseil communal à leur égard," *Revue Archéologique* 4 1913, 171–83; see 172f.

⁶⁶ Tuena, Filippo, "Un bando del 1572 per la regolamentazione degli scavi in Roma," *Xenia* 17 1989, 91–94.

⁶⁷ Riccetti, Lucio, "Ad perscrutandum et explorandum pro marmore. L'Opera del Duomo di Orvieto tra ricerca dei materiali e controllo del territorio (secoli XIII–XV)", in Crouzet-Pavan, Elizabeth, ed., *Pouvoir et édilité. Les grands chantiers dans l'Italie communale et seigneuriale*, (Rome 2003), 245–373; see 263–6, 275–7, 284–90. Nine Orvietani spent 388 days at Albano ad faciendum et laborandum marmora pro dicto Opere et ad investigandum et inveniendum ipsa marmora—the words suggesting the blocks were cut to size on site, before being transported, just as it would be from any quarry.

⁶⁸ Riccetti, Lucio, "La facciata del Duomo di Orvieto". Cronologia, cantieri, committenza (1290–1310), *Nuova Rivista Storica* XCI 2007.1, 1–64.

⁶⁹ De Bouard, A., "Gli antichi marmi di Roma nel medio evo," *Archivio della Reale Società Romana di Storia Patria* XXXIV 1911, 239–45; see 243–5 in 1329 Robert of

*San Vincenzo al Volturno*⁷⁰

If in Rome it is usually impossible to match a mediaeval text with excavated remains, for S. Vincenzo we have both the *Chronicon Vulturense* and a series of archaeological digs which have been well published. In some instances it has proved possible to match the text to some of the finds, offering a fascinating view of how narratives and archaeology could work together to try and confirm attitudes to antiquities.⁷¹

There were sumptuous earlier basilicas elsewhere in the peninsula (Aquileia, Milan), and also ninth-century revivals that echo that in Rome. At S. Vincenzo al Volturno, rich in relics, old marbles, and Imperial connections, the ambitious abbot, Father Joshua, tried to create a “Saint Peter’s of the South”—that is, “close to a major artery for European pilgrims, at a point just outside the extent of the Carolingian frontier, within the territory of Benevento.”⁷² He built a prestigious set of buildings with Imperial and ducal help, for “the Carolingians competed with the Lombard dukes of Benevento to kill the monastery with kindness.”⁷³ No doubt the monuments of Benevento, especially S. Sophia with its large and splendid marble monoliths, were an inspiration and a challenge. And it would be interesting to know what Montecassino looked like before the Saracen sack of 883.

Monasteries hold an importance place in the development of mediaeval culture,⁷⁴ and are important for our theme when, as here, they are

Anjou built a baldacchino tomb for his mother Mary of Hungary, in Naples; author dates wholesale export of marble from this period, and notes (245) that “le tombe di s. Chiara e di s. Maria di Donna Regina non furono i soli monumenti di Napoli che fossero costruiti a danno delle rovine romane.”

⁷⁰ <http://www.sanvincenzoalvolturno.it/> includes details of classical material found, large parts of the pavement in place, and c.23000 marble fragments, some from far-flung locations: red and green porphyry, portasanta, pavonazzetto, giallo antico, africano, proconnesian.

⁷¹ —Although for one scholar the archaeological tilt is too much. Balzaretto, Ross, “San Vincenzo al Volturno: history rewritten?” reviewing Hodges, R., *Light in the Dark Ages*, (Ithaca 1997) in *Early medieval Europe* 8.3, 1999, 387–99: “in part a polemic in favour of archaeology over history...I am concerned that the archaeological interpretations presented by Hodges are driven by written evidence which he generally disparages;” and cf. 391: “The treatment of Charlemagne’s impact on Italy is prone to exaggeration.”

⁷² Hodges, “The making of a monastic city,” 251.

⁷³ Brown, Peter, *The rise of Western Christendom: triumph and diversity, A.D. 200–1000*, 2nd ed., (Oxford 2003), 446.

⁷⁴ Leyser, Conrad, “Hidden revolution: monastic culture and the making of Europe, 300–1100,” *Rivista di Storia del Cristianesimo*, 2 2005, 311–29.

built in an area rich in marble buildings.⁷⁵ The Chronicle tells of how Abbot Joshua persuaded the Emperor to cede them a very old temple in Capuan territory. This had large quantities of columns and other various blocks, in a location called “*Edes Imperatoris, vel Cripte*,” the first term indicating something splendid, the latter accessible underground areas. And so great was the devotion of the brothers and so strong the workmen that it took little time to raise a splendid church with “*maximis columpnis*”—in fact 32 columns in all, and a gold-lettered inscription on the façade reading “*Queque vides, oспes, pendencia celsa, vel ima, Vir Domini Iosue struxit cum fratribus una*”—the kind of boast also seen elsewhere.⁷⁶ The chronicle claims both that the Emperor came to the consecration in the year 808, and that the Emperor’s wife was sister german to Joshua.⁷⁷ But Louis did not rule in Capua, he did not attend the consecration, and there was no consanguinity between him and the abbot. Examining this rare gift-horse of ruins+chronicle in the mouth leads to more doubts. For the 12th-century text is chronicling what happened centuries before, and fitting actions to a church rebuilt more than once since then. Perhaps it narrates what might or should have happened (or what would have happened in the 12th century), because the account often smacks strongly of legend-building. Indeed, the raising of columns with block and tackle, while far from impossible in the 8th century, would have been much more common in the chronicler’s own day.

Nevertheless, the Chronicle’s account asserts that in some places ancient temples with their columns survived into the ninth century, that such antique structures were prized for prestigious building works, that perhaps the Emperor had jealous control of them, and that he also may have had technology and machines to lend to the monks. These would have been levered war machines that anyone desirous of defence or attack most certainly needed. However (partaking of a long tradition of inflated foundation inscriptions) Abbot Joshua took the credit in the inscription for raising the building, when all he really

⁷⁵ Federici, Vincenzo, ed., *Monaco Giovanni, Chronicon Vulturnense*, (Rome 1940), I 276–7 for “castello, quod dicitur Marmora,” and another “in Marmora”; or II 142 for Fonticelli cum castello, quod Marmora nuncupatur (same place); But this might just mean good cut stone: cf. I 21, usque ad pontem qui dicitur Marmoreus; although I 316 has ad Pontem Lapideum, so perhaps varieties of stone were indeed distinguished.

⁷⁶ Liutprand, building his palace at Corteolona, boasted in his inscription of the richness of the precious marbles and columns he had used: cf. *AIMA* 2.363f.

⁷⁷ Federici, *Chronicon Vulturnense*, I, Rome 1925, 220–1.

did was to pull some strings, and then have workmen pull ropes to have some columns shifted and re-erected. The excavators of S. Vincenzo al Volturno knew of this reference, of course, and put it down to legend; but now column fragments of pink Aswan granite have indeed turned up at the site, so it looks as if the author, the Monk Giovanni, was correct. Semi-proof that the monks knew where to look is offered by the toponyms already mentioned, which are common appellations for places where there are antique remains. The finished building was certainly ambitious, being about twice the size of the contemporary Montecassino.⁷⁸ The structure completed c.820 was about three times the length of its predecessor at 65.5m in length, with 24 nave columns and a marble pavement, arguably for the arrival of the relics of S. Vincent, “legally or illegally.”⁷⁹ The floor of the crypt included red and green porphyry, africano and proconnesian, and the relic-chamber itself was hung with silk curtains. Funerary inscriptions were re-used in the opus sectile floor of S. Restituta, and it has been suggested that other re-used items were intended to create a sense of order, refinement and elegance.⁸⁰ Coates-Stephens damps down such enthusiasm for renovatio here by pointing out that the majority would not in fact have been on view, and that the re-used inscriptions are few.⁸¹

During the dig, plenty of evidence was found to support the Chronicle and the monastery’s prestige. Reconstructions could be made of the ninth-century refectory, with “matched marble panelling” in fresco around the walls above bench level, and evidence was found for the systematic dismantling of the old monastery right down to ground level to provide building materials for the new.⁸² And in the refectory

⁷⁸ Hodges, Richard, Gibson, Sheila, & Mitchell, John, “The making of a monastic city. The architecture of San Vincenzo al Volturno in the ninth century,” *PBSR* LXV 1997, 233–86; see 252 for relative sizes.

⁷⁹ Mitchell, John, et al., “Cult, relics and privileged burial at Vincenzo al Volturno in the age of Charlemagne: the discovery of the tomb of Abbot Talaricus (817–3 October 823),” in Gelichi, S., ed., *I Congresso nazionale di archeologia medievale*, (Florence 1997), 315–21.

⁸⁰ Marazzi, Federico, ed., *San Vincenzo al Volturno: introduzione ad un cantiere di archeologia medievale*, (Naples 2002), 28–9, 85–6.

⁸¹ Coates-Stephens, Robert, “Epigraphy as spolia—the reuse of inscriptions in early medieval buildings,” *PBSR* LXX 2002, 275–96; see 287–9.

⁸² Hodges, Richard, & Marazzi, Federico, *San Vincenzo al Volturno: sintesi di storia e archeologia*, (Rome 1995); see 32–3, 46. Hodges, Richard, & Mitchell, John, *The basilica of Abbot Joshua at San Vincenzo al Volturno*, (Rome 1996), 63ff. for the crypt and its painted decoration, which included walls—figs 4.2, 4.12–14—which imitate in fresco panels of opus sectile; 73: it looks like opus sectile, but the rota “on closer inspection, it appears

at least the antique elements were prominent, not hidden. This had a threshold taken from a Roman building, and entered “through a wide central door, which was embellished with sculpted elements taken from a Roman tomb.”⁸³ In fact, there were various kinds of re-use, capitals, bases and shafts, marble slabs and epitaphs, some cut for their new location, some reworked.⁸⁴ Mitchell has also been able to find evidence to support the Chronicle, including not just elements of the columns, but traces of a 14.5 metre inscription which must have been high on the façade, as on a Roman temple.⁸⁵ So it seems that it was not only the Moslems who were making monumental inscriptions at this period. He has also suggested that S. Vincenzo adopted “a measured and critical attitude”⁸⁶ towards re-use—a harbinger of the attempts at integration we shall find after the Millennium.

Benevento and elsewhere: marble monuments displayed on churches

Benevento’s important strategic and political position is reflected in her prestigious ancient monuments, and the use made of them during mediaeval centuries. Some of the re-use is difficult to date. The secular Rocca dei Rettori in its present conformation is later than the façade of the Duomo, but is similarly decorated, and is plausibly a rearrangement of some earlier part of the fortifications. In any case most of the old pieces are in the lower courses, and are surely displayed to be admired, as perhaps are the blocks with which they are set. Certainly, the Torre de Simone also contains many antiquities, and is considered part of the

more like an ordered assemblage of translucent coloured glass panes”—which they’d like to think actually existed in the nave etc. of the church above.

⁸³ Hodges, “The making of a monastic city,” 269.

⁸⁴ Overview in Castellani, A., “Riutilizzo e rilavorazione dei marmi romani nell’abbazia altomedievale di S. Vincenzo al Volturno,” *II Congresso Nazionale di Archeologia Medievale*, (Florence 2000), 304–308.

⁸⁵ Mitchell, J., “Literacy displayed: the use of inscriptions at the monastery of San Vincenzo al Volturno in the early ninth century,” in McKitterick, R., ed., *The uses of literacy in early mediaeval Europe*, (Cambridge 1990), 186–225; see 206–208; he notes an 11-centimeter high metal character inscription at Corvey (873–85) and, in Arechis II’s chapel in the Salerno palatium, of gilded bronze letters some 16cm in height similar to those at San Vincenzo, but earlier. Salerno inscription, 38cm high, illustrated and catalogued in *Paderborn 1999*, VIII.55, together with re-used marble from Corvey and Salerno at VIII.48–9.

⁸⁶ Mitchell, John, “The uses of spolia in Longobard Italy,” in Poeschke, *Antike Spolien*, 93–107.

Longobard fortifications. Not very far from Trajan's Arch, which also formed part of the mediaeval enceinte, it incorporates apotropaic-looking pieces similar in intent to city gates at Pavia and Milan. Are such collections a new kind of relic? That is, parallel to the lists of relics to be found within such churches, sometimes in finely inscribed lists, and perhaps similar to the common practice of using ancient marble vessels and inscribing them with the names of saints?⁸⁷

Down the hill from the Rocca is the Duomo, whose refurbished façade displays third-century doorposts,⁸⁸ and has old veneer panels of different sizes held in place by marble string-course pegs, all probably transferred wholesale from the nearby Roman theatre. This is one of the few churches with exterior veneers in Italy, and in an area of Byzantine influence. The two inscriptions on the façade proclaim the renovatio and boast of the marble, the replacement at the left imitating the 13th-century one.⁸⁹ The adjacent campanile displays yet more, including funerary stelae (of which there were plenty: more examples are in the garden of the Museo del Sannio). For example, a Longobard head has been placed on a late Roman figure in military dress, itself crude.⁹⁰ This is perhaps the more significant because the figure is placed as high as possible, the head breaking the cornice at the very top of the campanile. This was rebuilt in 1279, so were the old elements already built into an earlier version? Again, there are several inscriptions and fragments of inscriptions set into the façade, including an antique tomb slab with inscriptional roundel which has been set upside down—but which would have fitted just as well the right way up. This implies that the very fact of reusing earlier inscriptions was more important than the ability to read them, and might suggest that nobody wanted to (or perhaps could?) read them. Then again, a palazzo (12thC or later?) near the Portico di Ottavia in Rome incorporates a classical inscription

⁸⁷ *Il Veneto nel medioevo*, I, 260 & fig. 14: marble inscription in S. Elena, Verona, with a list of relics placed in the altar on occasion of the consecration of the church by Andrea, Patriarch of Aquileia (842–7)—and in a lettering nearly as fine as that of Hadrian's epitaph in S. Peter's; *ibid.*, I, 277 fig. 25: for a Roman funerary cippus inscribed with the names of saints in SS Felice & Fortunato in Vicenza.

⁸⁸ Pensabene, *Contributo*, 107ff.

⁸⁹ HEC STUDIO SCULPSIT ROGGERIUS ET BENE IUNCXIT MARMORA QUE PORTI / TRIBUS ASPICIUNTUR IN ISTIS ET QUE PERPURUM SPEC-TANTUR LUCIDA MURUM.

⁹⁰ Illustrated in Rotili, N., *Benevento Romana e Longobarda: l'immagine urbana*, (Benevento 1986), tav. LXXVI–VII.

some 20m long, together with part of a sarcophagus, and a four-figure funerary stele.

So although this city has the best surviving examples, the phenomenon of reusing funerary stelae is not confined to Benevento nor yet to Southern Italy. Frenz⁹¹ catalogues 159 examples of which some 49 are still incastrated on church, campanile or castle walls in central and southern Italy. Of these 27 are displayed at Benevento, on the Duomo (14) and the Rocca (13). There are a further 15 in the Museo del Sannio, and one in via Caetano Rumno. The insertion of figured reliefs into campanili is localised. Although they are displayed at Genoa (in the Duomo, which was the property of the commune), and in Ferrara,⁹² there are none in Lucca or Pisa. Rome, again, today counts some 35 Romanesque campanili (there were nearly 100 in Tempesta's 1593 plan) which "survive as testimony to a boom in ecclesiastical construction in Rome during the twelfth and early thirteenth centuries."⁹³ Although there are plenty of such reliefs now in the museums of Rome, and these from Roman locations, there are none to be found in the campanile of any church in Rome. Instead, their speciality is porphyry and serpentine specchi and bacini, nearly all imported from the Maghreb, but also from Sicily, S Italy, Spain and Málaga.⁹⁴ And perhaps, as in Pisa, the workmen were intent on so recutting their marble that they made things anew. In this respect Priester's suggestion⁹⁵ that some of Rome's cloisters were constructed by the workshops that also built bell towers makes perfect sense, for they share what she calls "similar architectural and decorative vocabulary."⁹⁶ Moving slightly north, antiquities are displayed in Chiusi,⁹⁷ and again in Milan. Reworking such reliefs to sharpen or freshen them up was a common practice, as Frenz remarks:

⁹¹ Frenz, H.G., *Römische Grabreliefs in Mittel- und Sueditalien*, (Rome 1985).

⁹² Uggeri, Giovanni, "Il reimpiego dei marmi antichi nelle cattedrali padane," in Romanini, Angiola Maria, ed., *Nicholaus e l'arte del suo tempo*, (Ferrara 1985), II, 609–36: inscriptions and stelai, plus a tondo of Diana; one of the stelai is decorative with opposed gryphons and cantharus, the other a togate figure of the doctor Pupius.

⁹³ Priester, Ann, "Bell towers and building workshops in medieval Rome," *JSAH* 52.2 1993, 199–220; see 199.

⁹⁴ Berti, Graziella, "Le rôle des bacini dans l'étude des céramiques à lustre métallique," *Le calife le prince et le potier: les faïences à reflets métalliques*, (Lyon 2002), 220–7, notes 10 in Rome—and there might once have been more.

⁹⁵ *Ibid.*, 217f.

⁹⁶ Both bacini and roundels of re-used marble and what they might tell us about Islamic contacts are dealt with on the DVD: dvd_bacini_roundels.doc.

⁹⁷ Manzi, M., "Marmi lavorati di età romana riutilizzati nel duomo di Chiusi," *Studi Classici e Orientali* 39, 1989, 311–19.

there is re-cut work in the campanile at Benevento, and he points to the relief of the Cornelii at Venosa, in the Abbazia della Trinità, suggesting that it has been reworked, perhaps in the eleventh century, because it was probably in its present location by then.⁹⁸ Originally a Lombard foundation, Venosa deserves a mention here because of the extensive use of material from the nearby Roman settlement, perhaps deeded to the abbey by the Normans who were its great patrons.⁹⁹ The southwest flank of the unfinished Norman Abbey displays beautifully fitted masonry in regular courses, broad then narrow. This arrangement was probably just taken over from whichever of the nearby Roman buildings were spoliated,¹⁰⁰ with blocks from the old being ranged immediately into the new walls, for the most convenient and efficient way to dismantle a wall for rebuilding is course by course. Funerary reliefs are prominent, some of them recut; there are funerary lions, and the doorjambs of the main entrance to the church were reworked from imperial architraves, the tympanum from three marble sheets.¹⁰¹

As we might expect from the differing levels of Roman penetration, Pflug catalogues 328 portrait stelai for Northern Italy but only some 15 still appear to be incastrated in churches or campanili—four of these on the façade of the church of S. Gregorio at Campalano di Nogara. All other churches seem to boast only one stele, except for Trieste, which has two.¹⁰² In both north and south, find-places are often imprecise, and dates of discovery and display would, for the majority, be impossible to discover. So the fact that 42 out of Pflug's 328 main catalog pieces—or about one in seven of currently known pieces in northern Italy—are from a religious context might or might not be significant, for perfect record-keeping might have informed us of the source of pieces corralled to populate 19th-century museums.

⁹⁸ Frenz, *Römische Grabreliefs*, 41: cat. 60 & note 265.

⁹⁹ Décarreaux, Jean, *Normands, papes et moines*, 89f.; Salvatore, Mariarosaria, *Il museo archeologico nazionale di Venosa*, (Matera 1991), 298ff.

¹⁰⁰ Lachenal, Lucilla de, "I normanni e l'antico: Per una ridefinizione dell'abbaziale incompiuto di Venosa in tema lucarna," *Boll. d'Arte* 96/7 1996, 1–80; fig. 50; similar stonework in the right transept corner: fig. 98. Giammatteo, Tonia, *Spolia. Il riuso dell'antico a Venosa*, (Lavello PZ 2002), 25–7; 107ff. for a catalogue. The author sees such reuse in southern Italy as the result of alliances between Benedictines and Normans, church and political power, so that "L'antico diventa un instrumentum regni, trasmette un messaggio di potere," but does not isolate any coherent programme.

¹⁰¹ *Rilavorazione*, Cats 15–16.

¹⁰² Pflug, H., *Römische Porträtstelen in Oberitalien*, (Mainz 1989); *Rilavorazione*, cat. 51: first-century funerary stele of the Barbii, limestone, part of the 14th-century rebuilding of the cathedral.

The use of antiquities at Trieste was every bit as lavish as at Benevento. There is extensive use of old blocks in the campanile of the Duomo (including martial panels and large runs of cornice and frieze), and a 3-tier high by 2-figure wide funerary relief is re-used as the jambs to the main door, rather than being incastrated in the campanile. This re-use has entailed slicing the slab down the middle and placing it so that the outer Roman flanks do indeed face out, while the newly sawn faces kiss the courses of the wall.¹⁰³ The labour expended, and their location, suggest that such reliefs were highly prized. Trieste is not alone in the re-use of such stacked portrait reliefs, for something similar happened at Tulln, a base for the Roman fleet on the Danube. Are such setups an upmarket version of freshly carved Romanesque portals? In any case, the Trieste blocks (which included inscriptions) impressed as intended, as reported in a 17th-century account.¹⁰⁴

Why were such stelae popular? Probably because they were plentiful in antique cemeteries. But is there any possibility of the tradition for re-using such stelae being part of a continuing or revived tradition of interest in “portraiture”? Portrait tondi appear on some consular diptychs, and on the Brescia Lipsanoteca (Museo dell’Età Cristiana, 2nd half IV century). So are the ancient slabs resurrected as portraits of saints? Or regarded as ancestor-portraits of the city’s forbears? Would that the genesis of mediaeval tomb sculpture were clearer than is currently the case.¹⁰⁵ Certainly, inspiration from such antique stelae will surface with added force in the Renaissance in Italy,¹⁰⁶ as in the conceit whereby the single deceased leans out of the tondo. And this is yet another instance where the Renaissance is foreshadowed by renaissances, the later Middle Ages showing the way in prizing such materials and displaying them. Occasionally, we might glimpse such antiquities as echoing contemporary art. The C. Vettius stele in Milan’s Porta Nuova, for example, has one head centred at top, then a pair each

¹⁰³ Pflug, *Römische Porträtstelen*, cat. 79; Rizzi, A., ed., *Friuli Venezia Giulia*, (Milan nd), figs 188 & 189.

¹⁰⁴ della Croce, Ireneo, *Historia antica, e moderna, sacra, e profana, della Città di Trieste*, (Venice 1698), 381; cf. 269–70 for the triumphal arch into which the campanile is built.

¹⁰⁵ Bauch, K., *Das mittelalterliche Grabbild. Figürliche Grabmäler des 11. bis 15. Jahrhunderts in Europa*, (Berlin 1976), figs 22 & 14.

¹⁰⁶ Grisebach, A., *Römische Porträtbüsten der Gegenreformation*, (Leipzig 1936), where the Bonsi Tomb in S. Gregorio Magno (by 1500, with husband and wife busts in plain tondi toward the bottom, and the epitaph underneath them) is compared with a 1stC BC husband and wife pair within floral & shell tondi, also with epitaph under: see 39–42.

in its own arcuate niche, which is divided by a colonette; then another similar, then the inscription at the bottom. This is none too far from Byzantine icons, such as those diptychs / triptychs with standing saints, usually paired,¹⁰⁷ and one wonders whether we should see such stelai as apotropaic precisely because they parallel existing Christian forms. Similarly, and given the propensity for incorporating blocks upside-down or sideways, we might imagine that careful placing could have some meaning. At Carsoli (L'Aquila), for example, Spaziano details examples of Doric friezes in two towers, namely the 10thC funerary church of S. Maria in Cellis, and S. Maria del Piano, at Orvinio.¹⁰⁸ Such display presumably indicates selection, rather than just the incorporation of material that turned up on the site, the more so since the many pieces are all displayed the correct way up. What their use might mean is, however, difficult to say.

Genoa

With Amalfi, Pisa and Venice, Genoa was one of the great commercial successes of the Middle Ages, trading extensively with Islam and competing vigorously with Venice.¹⁰⁹ She spent lavishly on distinctive marbled buildings, sometimes with figured pieces,¹¹⁰ including sarcophagi,¹¹¹ and later with marble extracted from the quarries of nearby Carrara. Genoa thereby set herself in cultural (via commercial) competition with her rivals, and collected old marble with which to decorate her city. She is the only city beside Venice for which we have surviving evidence of extensive use of antiquities on palaces.¹¹² "Who would not have gazed

¹⁰⁷ E.g. ivory triptych, X century, Rome, Museo di Palazzo Venezia, in Rey-Delqué, Monique, ed., *Le crociate: L'Oriente e l'Occidente da Urbano II a San Luigi 1096–1270*, (Rome 1997), cat.22. This parallels funerary stelae, such as that with three full-length figures set into the portal of S. Agata dei Goti (on its side), illus. L.R. Cielo, *Monumenti romanici a S. Agata dei Goti*, (Rome 1980), fig. 29.

¹⁰⁸ Spaziano, P., *I fregi dorici di Carsoli*, Tesi di Laurea, (Chieti 1990–1), 172ff. & plates XVII–XXI for S. Maria in Cellis; plate XXII for S. Maria del Piano, at Orvinio.

¹⁰⁹ *Airalidi, Gabrietta, *Guerrieri e mercanti: storie del medioevo genovese*, (Turin 2004): 203ff. for Genoa & Islam; 261ff. for Genoa & Venice. Schaube, *Handelsgeschichte*, paras 44–9.

¹¹⁰ Pryor, John, "The maritime republics," in Abulafia, David, ed., *New Cambridge Medieval History*, V, c.1198–c.1300, (Cambridge 1999), 419–46; see 431 for the programs (from which he omits the façade of San Marco).

¹¹¹ Faedo, Lucia, "Conoscenza dell'antico e reimpiego dei sarcofagi in Liguria," in Andrae, *Reimpiego dei sarcofagi*, 133–53.

¹¹² Müller, Rebecca, *Sic hostes Ianua frangit. Spolien und Trophäen im mittelalterlichen Genua*,

with amazement...at the towers and palaces, nature vanquished by man...the buildings of marble at the foot of the hills, second to no one in royalty and enviable to any city?" writes Petrarch.¹¹³ As George L. Gorse notes,¹¹⁴ her architecture is built on appropriation, spoliation and transformation, so that she "fiercely competed with Pisa and Venice for the despoliation of Byzantine and Muslim sacred sites, the 'translation' of Mediterranean power to the West." Unfortunately the actual details of booty taken are often lacking,¹¹⁵ and we may assume that there were once many more than the twenty five items catalogued in admirable detail by Müller,¹¹⁶ as well perhaps as standing instructions to her sea-captains, examples of which survive for Venice. Indeed, a census of her remains reflects her interests, mainly in the eastern Mediterranean.¹¹⁷ Some results survive in the Cathedral and in S. Maria di Castello (with two kufic inscriptions in the latter),¹¹⁸ including sarcophagi, which were often set as bas-reliefs rather than as free-standing objects.¹¹⁹

We know how rich in marble the mediaeval city must have been, because of Dufour-Bozzo's admirable catalogue of her gates. There she writes of the thesaurization of marbles, instancing Porta S. Andrea, which was but one of several gates where the typology and the blocks displayed have overtones of triumph.¹²⁰ Here a Greek stele of Apollonia was found in 1912, walled into the south tower two metres above the ground. This set of walls went up in 1155–8, so the gate would probably be of the same date. In spite of attempts to source it from a local cemetery, it is much more likely that this stele was imported

(Weimar 2002), 21–46 for context with Pisa and Rome; 46–106 for a chapter on the city's trophies 12th to 14th century.

¹¹³ *Le familiari*, 14.5, 23–5 after visiting Genoa in 1352.

¹¹⁴ <http://pages.pomona.edu/~glg04747/genoa/genoa4.htm>

¹¹⁵ Monleone, Giovanni, ed., *Jacobi de Voragine, Chronica Civitatis Ianuensis ab origine urbis usque ad annum MCCXCVII*, (Rome 1941), e.g. 82–3, 94, 97.

¹¹⁶ Müller, *Sic hostes Ianua frangit*, 189–242, including sarcophagi (e.g. cats 17, 23, 25).

¹¹⁷ Di Fabio, Clario, & Dagnino, Anna, "'Ianua' fra l'Europa e il mare: la scultura in un territorio di frontiera. XII–XIII secolo," *La scultura a Genova e in Liguria dalle origini al Cinquecento*, 1, (Genoa 1987), 85–177; see catalogue entries 164–77 and bibliographies for re-use and inscriptions.

¹¹⁸ Cervini, Fulvio, *Liguria romanica*, (Milan 2002), 81–96, 105–11.

¹¹⁹ Faedo, Lucia, "Conoscenza dell'antico e reimpiego dei sarcofagi in Liguria," in Andrae, *Reimpiego dei sarcofagi*, 133–49, with location diagrams for cathedral and campanile as figs 1a & 1b.

¹²⁰ Dufour Bozzo, C., "La porta de città nel medioevo come 'testo' semiotico," in Heers, J., editor, *Fortifications, portes de villes, places publiques, dans le monde méditerranéen*, (Paris 1985), 67–80.

as a trophy,¹²¹ an echo of trade with the East,¹²² and later matched by triumphal inscriptions.¹²³ Columns, some of them old, were also used to decorate houses, and some survive.¹²⁴ Unusually, because such documents tend to be abbreviated and formulaic, Genoese wills show that marble was also inherited, along with ivory.¹²⁵ That families added to their prestige with ancient marble is seen in the Doria abbey of S. Fruttuoso di Capodimonte. The cloister displays marble, the burial vault sarcophagi, and the abbey façade had the head of an emperor displayed on a bracket.¹²⁶ Furthermore, a Roman altar survives with an 11th/13thC inscription declaring it contains the saint's relics (and those of deacons Augurius and Eulogius).¹²⁷ (Were such displays common? The atrium at Pomposa displays a Roman female head, close to perhaps 9th-century reliefs—so the head might have been there well before the Millennium.) Importing marble from the East was no problem. In the Duomo treasury is conserved a glass bowl, which Cyriacus of Ancona (like others who presumably could not get close enough to judge its true material) noted as being “of very precious green stone,” carried off by the Genoese from Caesarea, and “preserved with great

¹²¹ Dufour Bozzo, C., “Il reimpiego dei marmi antichi nei monumenti medievali e l'esordio della scultura architettonica del 'Protoromanico' a Genova,” *Bollettino d'Arte* 3 1979, 1–58, especially 48–53; i.e. for the first half of the twelfth century. Müller, *Sic hostes Ianua frangit*, appendix for a catalogue.

¹²² Pioggi, Victor, *Leges Genuenses*, (Turin 1901), 352ff. for the 14th-century regulations, involved in trading with Alexandria and the “Sultan of Babylon,” then Jaffa and Cyprus, plus Pera.

¹²³ Scalia, Giuseppe, “Le epigrafi,” *Lo spazio letterario nel medioevo* 1, *Il medioevo latino*, II *La circolazione del testo*, (Rome 1994), 409–41; see 439–40.

¹²⁴ Grossi Bianchi, Luciano, *Una città portuale del Medioevo: Genova nei secoli X–XVI*, (Genoa 1980); 147 for columns in reuse in an early 13thC portico in vico Indoratori; 151 for column and capital in a rebuilt house (undated) in già antica piazza Galiana, now Luxorio; and 152 for contract of December 1191 promising work on a private house, “...et picare columpnam et facere [eam] usque ad lixare et capitellos, et columpnellos vermiliis, et laborare marmora... [and states cost for] et calcinam et marmora et columpnam, et capitellos, et ligna.”

¹²⁵ López, Roberto, *Studi sull' economia genovese nel medio evo*, (Turin 1970), 243 for will of 1240, deeding two ivory caskets (“capsietam unam elephantis... aliam...”); and same deed 244 “anforam vitri de Ultramar”; 246: another deed of 1240, deeding “lucernam unam sarracenicam,” and also “lapides tres marmuris”.

¹²⁶ This might not have been rare: the Torre Comunale at Ravenna and the campanile at Pomposa both display Roman marble heads. The former also displays a sarcophagus fragment.

¹²⁷ Giannattasio, Bianca Maria, Quartino Luigina, & Mennella, Giovanni, “I marmi antichi di San Fruttuoso di Capodimonte e il loro reimpiego,” *Rivista di Studi Liguri* 58 1992, 5–35.

reverence and reverence for all time, almost as if it were a cult object, their city's extraordinary marvel, to put on display."¹²⁸

Unfortunately for our appreciation of displayed antiquities, the city's success continued into the 17th century. The great rebuild, which stretched outside the confines of the original nucleus, destroyed much of the earlier architecture, although down by the harbour, SM in Castello is intact, and retains its fine monoliths and capitals. But marble still reigns along the Strada Nova.¹²⁹ The best surviving display from our period is to be found on the campanile and the façade of the Duomo of S. Lorenzo.¹³⁰ Here strigillate sarcophagi and other reliefs are set programmatically,¹³¹ and complemented by marble brought back to dignify relics, such as those from Mira.¹³² Sarcophagi have also been found under the adjacent piazza, so perhaps they were set around the Duomo, as at Pisa. S. Stefano and S. Niccolò del Boschetto also display early Christian sarcophagi, the former as a tympanum. The Greek stele mentioned above was not the only import, for marble obtained locally presumably lacked cachet. So adventurous were the Genoese that at least one splendid shipment was lost—so splendid that Caffaro (died c.1164) gives an account of it.¹³³ Wintering in Lattakia, they “brought to ground twelve marble columns”—note the implication that even getting the shafts horizontal is worth stating—“which were still standing in the palace of Judas Maccabaeus, and put them on a ship, and they were 15 palms high [i.e. lying down—1.15m], and of various colours, red, green and yellow, and shone so that people could look in them as into a mirror. At Easter... the ship with the columns, on its way to Genoa, was wrecked in the Gulf of Adalia.” The palace cannot be located, but this account tells us four things: (1) the tales of the Orient told in Genoa probably spurred them to collect columns;

¹²⁸ *Cyriacus: Later travels*, 269: Letter 39 (after 21 Aug. 1446).

¹²⁹ Spon, Jacob, & Wheler, George, *Voyage d'Italie, de Dalmatie, de Grèce et du Levant*, 3 vols, (Lyon 1678), I.33: “On n'y void que des Palais et du marbre, et la Strada nova n'en a que de fort superbes.”

¹³⁰ But see also S. Matteo & S. Donato.

¹³¹ Settis, Salvatore, “Continuità, distanza, conoscenza: tre usi dell'antico,” in Settis, Salvatore, ed., *Memoria dell'antico nell'arte italiana*, (Turin 1986), II, *Dalla tradizione all'archeologia*, 375–486; see fig. 416 and the diagram at 481.

¹³² RM: Polonio, Valeria, “L'arrivo delle ceneri del Precursore e il culto al Santo a Genova e nel Genovesato in età medievale,” in Paolocci, C., ed., *San Giovanni Battista nella vita sociale e religiosa a Genova e in Liguria tra medioevo ed età contemporanea* (Genoa 2000), 35–65; in 1098 or 1099), initially unaware that Bari had already taken S. Nicola; they dug under the altar, and found a “cassa di marmo,” which the monks assured them contained the remains of the Baptist.

¹³³ Online at <http://mypage.bluewin.ch/cafarus/annaligenovesi.html>.

(2) good coloured marble columns of the same height were still available; (3) they had ships to carry such a load; and (4) unluckily for them, the south coast of Turkey, with few safe harbours, confirmed itself as a graveyard for ships.

Unsurprisingly, we find legal documents in Genoa connecting the city with nearby Carrara. One for 1191 is for the delivery of a single column. More surprisingly, another of the same year contracts delivery of twelve columns and capitals.¹³⁴ Hence some Genoese had money enough for private marble display, and surely marble was again being quarried, since the supply of twelve old columns of the same specified dimensions strains credulity. Such an assessment underlines the fact that the intention behind the collection of foreign material was not simply to build in marble (here any more than at Pisa, both close to the Carrara quarries and the local stocks at Luni, a lot of which disappeared after the 15thC),¹³⁵ but to make some kind of point with iconic objects about control of the Mediterranean seaways and the lands at their destination. On the other hand, there are so few documents before the mid-13th century that even mention Carrara that the specificity of these from Genoa, being so unusual, makes them significant and credible.

Modena

Modena offers an excellent example of the ways in which marble was used (and not used) in architecture and decoration in Northern Italy, being built in one manner, by a named architect. It is associated with

¹³⁴ Mannoni, Luciana & Tiziano, *Marble: the history of a culture*, (New York 1985), reprinted from Hall, M.W., Krueger, H.C., & Reynolds, R.L., *Ligurian notaries of the 12th century, Guglielmo Cassinese (1190–1192)*, (Genoa 1938): (1) Duranto, son of Giordano of Carrara, promises to deliver a marble column to Guglielmo Fondichiere: “columpnam 1. marmoris longam palmorum .VIII1/2, et grossam palmorum .IIII. et sumissi .I., sanam et integram, in portu Ianue...”; (2) “Promittit Stephanus de Zartex se datum Lanfranco Ricerio, in portu de Deva [Deiva] usque ad medium decembrum, columpnellos .XII., petre vermili de Paxano, pro sol. .IIII1/2 columpnellum, longos palmorum .V. et grossos sumissi .I., et capitellos .XII. pro den. .XIII. capitellum...”; and a “Bonvicino marmorario” was involved in an apprenticeship document in the same year: document on the web at RM: http://www.storia.unive.it/_RM/didattica/fonti/frova/sez6/par5.htm.

¹³⁵ Jervis, W.P., *The mineral resources of Central Italy*, (London 1868), 5: Cyriacus visited Luni in 1442, marvelling at the vast proportions of some of the blocks, 8 × 4 feet square: “venimus Lunam vetustissimam Ligusticae urbem, ubi primum diserta longiqua vetustate moenia vidimus... et parte confracta ingentiaque olim moenia conspexissem, marmoreis, magnisque lapidibus fuisse comperimus...”

an account of the miraculous finding of suitable materials (although documentation is lacking for much of the eleventh century), and it has inscriptions which are expansive (one measures 3m by 1.5m), if puny by Islamic standards.¹³⁶ Little on the exterior of the Duomo (apart from fragments of stele and blocks turned relief-inwards) appears actually to be antique,¹³⁷ although the interior has sturdy columns and splendid capitals. However, it is very likely both that re-usable materials were found as the foundations for the new Duomo were being dug (as the account avers), and that the earlier church on the site also yielded elements for re-use.¹³⁸ In any case, these were “*miras marmorum lapidumque congeries*,” which suggests both building blocks and decorative marble. Hence Quintavalle, while offering ideological reasons for the use of antiquities,¹³⁹ suggests that the miraculous discovery was largely symbolic: “*crescent ergo parietes, ma fino a che punto, fino a che altezza?*”¹⁴⁰ This is surely the only explanation for why the external walls are clearly intended by the intricate jigsawed use of irregularly-sized blocks to look like old marble veneer slabs or blocks. In other words, antiquities were smart, and faking them even smarter. Similarly the sculptor Wiligelmo is evidently interested in choosing appropriate marble for his sculpture, in spite of (or because of?) the fact that actual antiquities are not much in evidence. Here as elsewhere in Italy, the problem is that thanks to non-existent or sloppy record-keeping it is not clear what was displayed before 19th-century clean-ups, let alone in the pre-Lanfranco basilica. Rebecchi tries hard to explain why the Museo has only fifteen Roman pieces, only five of which seem to have

¹³⁶ Scalia, Giuseppe, “Le epigrafi,” 437.

¹³⁷ Frugoni, Chiara, ed., *Il Duomo di Modena*, 3 vols, (Modena 1999); none of the exterior columns or capitals seem to be old—but it would be useful to have this confirmed. The Atlante II 756ff. shows material in the Musco Lapidario del Duomo, some of it antique—e.g. #1483 Augustan tombstone reworked in early MA, and other works, clearly of marble, incl. reworked antique capitals, #1509–10.

¹³⁸ Salvini, Roberto, *Il Duomo di Modena e il Romanico nel Modenese*, (Modena 1966), 62 believes the materials came from a necropolis at Piazza Matteotti. Montorsi, William, *Gli incunaboli della Cattedrale Modenese: Basilica Teoduliana e Basilica Leodomiana*, (Modena 1984), 50 for columns from previous structures on the site.

¹³⁹ Quintavalle, Arturo Carlo, “Quei campi dei miracoli,” *Rilavorazione*, 15–28; see 15: “...momenti culturalmente unitari, momenti comuni di civiltà e quindi di appropriazione di modelli” and suggests it is thus that “dobbiamo porre, di una storicizzazione dei singoli reimpieghi e di una loro valutazione ideologica, e dunque funzionale e politica.”

¹⁴⁰ Quintavalle, Arturo Carlo, ed., *Wiligelmo e Matilde: l'officina romanica*, (Milan 1991), 48, and 128ff. for Modena and the antique; quote from 147.

been actively displayed in the earlier basilica, and suggests that the Lanfranco basilica suppressed their re-use in favour of new work.¹⁴¹ Such special pleading seems unlikely, especially when the campanile (perhaps the same date as the Duomo?) does indeed display antiquities, such as a reworked funerary stele,¹⁴² and five early plutei.¹⁴³ And it is always possible that antique stones were largely reworked, as were the Greek marble capitals for the holy water basins inside.¹⁴⁴ This fits in with the Relatio on the 1099 beginning of the cathedral, which says the discovered blocks were reworked (“sculpere” and “pulire”). A comparison might be Turin, where Bishop Landolf, in the first 30 years of the eleventh century, undertook a large building program the survivors of which display new work “or material presented as such... They were celebrated as being new, in contrast with a past of ruins and degradation”¹⁴⁵—a mediaeval theme equally as common as re-use. Whether old or not, Lanfranco’s inscription on the exterior of the apse puts the important words first: MARMORIB. SCVLPTIS.¹⁴⁶

At Modena, then, both old and new stone and marble were displayed. Lomartire has shown that much of the material making up the façade of the Duomo comes from the Vicentino and Istria, and he suggests that the apse inscription reference to “Marmorib. sculptis domus hec micat undique pulchris” is a global reference not only to the sculpture, but also to the carefully cut facing slabs.¹⁴⁷ Size and probably colouring

¹⁴¹ Rebecchi, F., “Tracce del reimpiego prewilgelmico e nuove testimonianze di architettura romana,” in Trovabene, G., ed., *Il Museo Lapidario del Duomo*, (Modena 1984), 167.

¹⁴² *Rilavorazione*, cat. 25: Funerary stele of the Salvii, mid-1stC, 3.4m high, now in the museum, suggested as “una simbolica ‘porta dei morti’”.

¹⁴³ Trovabene, G., “Problemi di reimpiego in età medievale: a Modena: I plutei della zona absidale del Duomo,” *XLI CCARB* 1994, 649–68.

¹⁴⁴ *Rilavorazione*, cat. 26: 5th-6thC recut start of 12thC.

¹⁴⁵ La Rocca, Cristina, “Using the Roman past. Abandoned towns and local power in eleventh-century Piedmont,” *Early Medieval Europe*, 5 1996, 45–69; and cf. Quintavalle, “Quei campi dei miracoli,” 24.

¹⁴⁶ Claussen, Peter C., “Früher Künstlerstolz. Mittelalterliche Signaturen als Quelle der Kunstsoziologie,” in Clausberg, Karl, et al., eds., *Bauwerk und Bildwerk im Hochmittelalter*, (Giessen 1981), 7–34 for context.

¹⁴⁷ Ferrari, U., “Il restauro della facciata del Duomo di Modena,” in Armandi, Marina, et al., eds., *Lanfranco e Wiligelmo: Il Duomo di Modena*, (Modena 1984), 631–7; Lomartire, Saverio, “Analisi dei paramenti murari del Duomo di Modena. Materiali per un’edizione critica,” *ibid.*, 101–117; cf. Schuller, Manfred, “Il palazzo Ducale di Venezia. Le facciate medioevali,” in Valcanover, Francesco, & Wolters, Wolfgang, eds., *L’architettura gotica veneziana*, (Venice 2001), 351–427; 416 for the superb jointing on this other prestige building.

were two of the attractions of using Verona marble (really a limestone), which the Romans prized as well,¹⁴⁸ and which appears inside in the curious High Altar enclosure and altar table supports. Antiquities could be used as city symbols. In the piazza facing the south flank, “La pietra ringadora” (cf. Arringatore), a block of red Verona marble 60cm × 306 × 178, perhaps brought here by the Romans, was used in the Middle Ages for orators. Verona itself employed a large marble capital for the same purpose. Parra, in a fundamental article,¹⁴⁹ has pointed out that it was not only Modena where antiquities were seen as a status symbol for the city, for they were placed in exhibition on the new cathedral of Pisa as well, the difference being that the Pisans sought their material abroad (including their sarcophagi), whereas the Modenese claimed to have got their material locally. Perhaps the Modenese were caught between their own ‘spolia legend’—the traditions of the city as represented by her local antiquities—and a desire for neat, new-looking stonework. As suggested above, they apparently solved this dilemma by cutting the stone beautifully but in different-sized sheets so that they would look old.¹⁵⁰ This happens conspicuously on the south flank, artfully emphasized by the different colouring of the slabs used, some limestone, some marble. At the east end of Pisa, where all the finest old columns are displayed, much the same happens: marble veneers are artfully jigsawed into a series of (deliberately?) irregular courses. To underline Modena’s and Pisa’s sophistication, look at the S flank and apse of Cremona where, in sharp contrast with the pot-pourri higher up the apse, the old marble and limestone are confined to a dado of regularly laid but different-sized veneer sheets, with the fixing holes left, and indeed sometimes used to attach adjacent sheets. This mixing of

¹⁴⁸ Gualandini, G., *Il Palazzo Comunale di Modena*, (Modena 1984), 29 & figs 17–18.

¹⁴⁹ Parra, M.C., “Rimeditando sul reimpiego: Modena e Pisa viste in parallelo,” *Annali della Scuola Normale Superiore di Pisa* 13 1983, III series, 453–83; quote from 472. See *ibid.*, “Marmi romani, marmi pisani: note sul reimpiego,” in Tangheroni, Marco, ed., *Pisa e il mediterraneo: uomini, merci, idee degli Etruschi ai Medici*, (Milan 2003), 105–11.

¹⁵⁰ In a city rich in splendid vessels, is the conspicuously rough sarcophagus in the crypt part of such striving for authenticity? If the Modenese really did fake antiquity in their veneers, this was probably quite common. At S. Miniato al Monte in Florence, antiquities decorate the crypt, but they appear to have had no suitable monoliths for the nave, all of which were marble-veneered in the 19th century. Cf. *Basso Rosa, “I capitelli romani di San Miniato al Monte: un caso di reimpiego a Firenze,” *Archeologia classica*, 44 1992, 147–184, for catalogue of 38 re-used capitals, including crypt, and the great ones of the nave. Is it possible that the great shafts of the nave were designed to be deliberately too large for them, to give the (false) impression that the shafts, like the capitals, were antique?

marble/limetone with brick above can also be seen in the Palazzo del Comune at Piacenza.

Whether or not the façade forms a coherent program, as Frugoni believes,¹⁵¹ the whole exterior has apparently intentional connections with the antique—which finds echoes in the façade of nearby Fidenza. This is partly by imitation,¹⁵² not only because of the Roman funerary lions, but because Wiligelmo's symmetrically balanced reliefs flanking the West door are surely intended to resemble sarcophagus panels. It seems certain that re-usable materials were actually scarce at Modena when the Duomo went up (hence the prominence of the Wiligelmo pieces), and likely that the vogue for inhumation in antique sarcophagi was much practised only after earth-moving needed for the ring of walls started in 1323 that brought to light some of the now-famous sarcophagi of the town.¹⁵³ In a period where apposite documents are very sparse, Parra notes two licences to dig for materials, both in the city and the area. This was one issued to the cathedral masons by the imperial legate in 1167, the other in 1242 by the bishop. There was also a ban in 1327 on exporting antique marbles from the city—so obviously by then this was happening, and such marble was needed locally.¹⁵⁴ These factors support the possibility that the Relatio is wishful thinking—that is, it is a this-should-have-happened gloss, whether the account of the translation is contemporary or later. If the materials are not in evidence, then we have another God-revealed-materials topos without solid (let alone marble) foundation.

The Duomo was also adorned with ancient sarcophagi, the best examples of which lined the south flank (with some placed on columns like the Bologna lawyers' tombs). These were taken from Modena's antique cemeteries and re-used for reasons of prestige, with the inscriptions

¹⁵¹ Frugoni, Chiara, "La facciata, le porte, le metope: un programma coerente," in Frugoni, *Il Duomo di Modena*, I, 9–38.

¹⁵² Peroni, Adriano, "Acanthe remployée et acanthe imitée dans les cathédrales de Modène, Ferrare et Pise," *Acanthus Colloquium*, 313–26—studies the foliage friezes;

¹⁵³ Rebecchi, Ferdinando, "Reimpiego di sarcofagi romani nell'età delle signorie: il caso di Modena," in Andreae, *Reimpiego dei sarcofagi*: 51–8.

¹⁵⁴ Parra, M.C., "Alla ricerca de 'Le belle prede de diverse sorte che dimostra la antiquita de questa Mca città de Modena.' Per una storia della ricerca archeologica dall'XI al XVIII secolo," in Cardarelli, A., et al., eds., *Modena dalle origini all'anno mille. Studi de archeologia e storia*, I, (Modena 1988), 33–43; 34 for licences, and for the suggestion that the two lions of the Porta Reggia of the Cathedral were found in diggings in 1209.

often recut, and sometimes the portraits redone as well.¹⁵⁵ The majority were probably all added much later¹⁵⁶ than Wiligelmus' friezes, which in their typology were far from a normal decorative type at this period. Harbingers for the much later pulpits by Nicola Pisano in the Pisa Baptistry, they formed a factitious mediaeval museum of the antique past, Wiligelmus perhaps studying local vessels just as did Nicola Pisano Pisa's imported ones.¹⁵⁷

Nevertheless, there could be more antiquities on the Modena façade than at first meets the eye. For Hearn, it "signals the first adaptation of large-scale figural ornament to an architectural setting in Italy," and he suggests that, because Eros/Thanatos were never used in Antiquity other than in funerary mode the Wiligelmo putti reliefs formed part of a marble shrine-altar for S. Gimignano for the crypt.¹⁵⁸ That is, Wiligelmus was directed by his commissioners to do the shrine-altar; and when they liked what they saw and he "inspired his patrons to commission this unprecedented façade program." In which case, we may regard the reliefs as manufactured funerary antiquities, intended to look antique and perhaps deceive. This interesting suggestion would benefit from comparanda to bolster it, but it provides another supporting argument for why the reliefs look so sarcophagus-like. Indeed, they are within the range of actual sarcophagus dimensions—so might it be that, as happened in southern France, they were indeed cut from sarcophagus panels?

Sicily: Palermo and Monreale

As is the case with Palestine, there are no marble quarries in Sicily which were worked in Antiquity,¹⁵⁹ so all marble to be found in Roman build-

¹⁵⁵ Giordani, Nicoletta, & Paolozzi Strozzi, Giovanna, *Museo Lapidario Estense*, (Modena 2003), 15: "un interesse quasi fanatico per le vestigia funeraria classiche."

¹⁵⁶ Malmusi, C., *Museo lapidario modenese*, (Modena 1830), 4–5, 59–60, 86–90 for three vessels found when digging the ditches in 1356. But much was surely available: see 62–3 for a lion found while constructing the Cittadella in 1635. One (see 3), already in re-use in 1118, he believes might have been uncovered before the Millennium.

¹⁵⁷ *Knauer, E.R., "Tribuerunt sua marmora provinciae. Beobachtungen zu antiken Vorbildern von Wiligelmus' Genesis-Fries an der Domfassade in Modena und zu den sog. Metopen," *ZKG* 50, 1987, 153–86.

¹⁵⁸ Hearn, Millard Fillmore, *Romanesque sculpture: the revival of monumental stone sculpture in the eleventh and twelfth centuries*, (Ithaca, NY 1981), 93–4 & fig. 66; quote from 129.

¹⁵⁹ Although diaspro siciliano and various agates were mined from the 16th century.

ings there was imported. Few of the other stones quarried in Roman Sicily seem good enough to have been much exported, so instead she imported marble from Africa, Italy, Greece, Egypt and Asia Minor. A glance at the island's position on the map will show how easy this would have been. Polychrome marbles and veneers were in use in Sicily by the end of the 1stC AD, and thereafter luxury was rife, as perhaps was re-use. Wilson discusses the great range of marble veneers used at Piazza Armerina, and demonstrates that some were certainly in re-use, since two types of marble found there (lumachella from Egypt and madreponete rossa from Asia Minor) are otherwise known only in first-century contexts. He concludes that some of the marbles must have come from an Italian stockist, that is a stockpiler, "for there are several stones represented here which were certainly not in common circulation in Sicily."¹⁶⁰ A certain amount may have been imported in Byzantine times, witness the door frame from S. Sebastiano in the Museo Nazionale Archeologico at Syracuse, together with marble shafts and capitals.

Little is known about marbled Roman structures on the island (apart from Taormina). All likely sites seem to have been stripped of columns, marble blocks and veneers, the best surely by the Arabs for North Africa or Syria, the rest by the Normans. As for the Greek temples, the glory of Sicily, none of these was built in marble, so none was touched—hence their state of survival to rival that of the temples at Paestum, and for the identical reason. Thus a walk around the magnificent Norman monuments of Palermo would not easily allow even the alert visitor to recognise a Roman past, let alone a Muslim one.¹⁶¹ Even the maps of the earlier periods are vague,¹⁶² although the decorative legacy in Christian architecture is clear.¹⁶³ Where has all the antique

¹⁶⁰ Wilson, R.J.A., *Sicily under the Roman Empire: the archaeology of a Roman province, 36BC–AD535*, (Warminster 1990), 237ff. for a survey; 241–2 for Piazza Armerina.

¹⁶¹ De Simone, Adalgisa, "Palermo Araba," in La Duca, Rosario, ed., *Storia di Palermo: II, Dal tardo-antico all'Islam*, (Palermo 2000), 78–113, and her excellent tabular chronology at 132–67.

¹⁶² Bellafiore, Giuseppe, "Palermo dalle origini alla maniera," in Benevolo, Leonardo, ed., *Metamorfosi della città*, (Milan 1995), 151–220:157–63 for Muslim Palermo (831–1072); and figs 88–90 plans of Palermo in antiquity, late 10thC and at the end of the 12thC.

¹⁶³ Goss, Vladimir P., "Western architecture and the world of Islam in the twelfth century," in Goss, Vladimir P., & Bornstein, Christine V., *The meeting of two worlds: cultural exchange between east and west during the period of the Crusades*, (Kalamazoo MI 1996), 361–75.

and Islamic magnificence gone? Muslim travellers are enthusiastic about the monuments they found,¹⁶⁴ but Galdieri writes an eloquent and acute indictment of the wasted opportunities for research into a “plausible, realistic and documented history of Islamic architecture in Sicily and, by extension, in Italy.”¹⁶⁵

The apparent lack of solidity in Islamic structures in Palermo helps further confuse any understanding of how materials got from Roman buildings via Muslim ones into Norman structures. Villari believed that the structure of the second Duomo of Palermo see-sawed between Muslim and Christian worship; certainly Moslems from Cairo would feel at home with the current exterior decoration, for it is similar to that of Al-Aqmar, of 1125.¹⁶⁶ He also suggested that the columns and sarcophagi were transferred to a new church begun in 570; this supposedly had 150 marble columns, four of which “of different colours, and speckled” were supposedly brought to Sicily by Scipio Africanus in 200BC from the destruction of Carthage.¹⁶⁷ This is not unlikely given the sea-distance, but highly unlikely given the date—yet another example of what should have happened. In the 1070s, and having just mentioned la Kalsa, Villari writes of a huge and beautiful mosque turned into a church dedicated to the Virgin,¹⁶⁸ and of which all trace has disappeared. Perhaps its materials went into Walter’s new cathedral, finished in 1184, “quem thesaurus ingens, potentissimus Rex Giul. II Senatus Excellentissimus, innumeri lapides, columnae, marmora, ligna tot palatiorum et ecclesiarum adjuverunt.” These were presumably materials stockpiled over several years. This is a parallel to the way Pensabene believes materials were collected at Ostia in Late Antiquity,¹⁶⁹ although

¹⁶⁴ De Simone, Adalgisa, “Palermo nei geografi e viaggiatori arabi del medioevo,” *Studi Maghrebini* II, (Naples 1968), 129–89; e.g. 153–6 for the Great Mosque, ex-cathedral. Amari, Michele, *Storia dei Musulmani Siciliani*, 3 vols (Palermo 1854–72), III, 840–89 for a survey largely from the Arabic sources.

¹⁶⁵ *Galdieri, Eugenio, “Sull’architettura islamica in Sicilia lamento di un architetto ignorante sopra una architettura inesistente,” *Rivista degli studi orientali* 74, 2001, 41–73.

¹⁶⁶ Bellafore, Giuseppe, *La Zisa di Palermo*, (Palermo 1978), uses this and other comparanda for La Zisa.

¹⁶⁷ *Villari, Gianfilippo & Meli, Guido, *Il tempio dei re*, (Palermo 2001); includes Italian translation of G.M. Amato, *De principe templo panormitano* of 1728, side by side with the original; cf. XVII, XIV, XXIV.

¹⁶⁸ Villari, *Il tempio dei re*, XXXII Book 4 chap 5.

¹⁶⁹ Pensabene, P., “Depositi e magazzini di marmi a Porto e Ostia in epoca tardoantica,” *Bollettino di Archeologia* 49–50 1998, 1–56. See figs 19–20 for dump of columns found in front of the Temple of the Febri Navales as they were being uncovered: 46

whether the Saracens took marble from Porto when they invaded in 846 is not known.¹⁷⁰ Useful pieces were retrieved from pulling down part of the Archbishop's palace to accommodate the new church's greater size, plus a whole list of houses and various churches. And since the same source notes that the palace was built from the ruins of several temples¹⁷¹ Walter effectively destroyed any evidence of Muslim use of marble in Palermo by reusing it again himself.

Normally with church rebuilds the surviving structure reflects and houses at least some elements from earlier incarnations, so what antiquities are to be found in Palermo Duomo today? There are the large slabs of Theban marble ("granito orientale") by the tribuna maggiore, and more similar in the nave.¹⁷² But apart from the column-shafts incorporated as decoration in the baroqued nave, little remains to be seen except sarcophagi, and in any case these may have been brought in later. The body of S. Cosmas, Bishop of Aphrodisias (d.1160) was lodged in a pagan sarcophagus of white marble (colonettes in the angles, and griffons, genii, two heads of Medusa), and sealed with a contemporary lid. Archbishop Tizio del Colle (d.1304) was buried in a strigillate antique sarcophagus with semi-open door and Mercury. Today, the main gems are the porphyry tombs, with their strong inspiration from Rome,¹⁷³ some of which Deer believes were cut from old columns.¹⁷⁴ Antiquities were also used at Monreale, where the marble columns of the apse exterior seem to have been echoed at Pontone, as does the use of porphyry sarcophagi.¹⁷⁵ In all cases these were propaganda tools

shafts (Thasos and proconnesian, averaging c.2.7m, shortest 2.01, tallest 3.55), 21 bases, 5 ionic capitals and 4 unfinished. For Rome cf. Magi, Filippo, *I rilievi flavi del Palazzo della Cancelleria*, (Rome 1945): large and heavy dismounted marble reliefs, four of them found leaning against a disused tomb: is it possible they were stockpiled in the Middle Ages?

¹⁷⁰ Lanciani, Rodolfo, *The destruction of ancient Rome; a sketch of the history of the monuments*, (New York 1901), chap XI.

¹⁷¹ Ibid., XLVIII, XLIX.

¹⁷² Ibid., LXIV; *Rilavorazione*, cat. 43 for the third-century sarcophagus of Constance of Aragón c.1222, with a lion hunt.

¹⁷³ Giuliano, Antonio, "Motivi classici nella scultura e nella glittica di età normanna e federiciana," in his *Studi normanni e federiciani*, (Rome 2003), 37–48.

¹⁷⁴ Deer, Josef, *The Dynastic porphyry tombs of the Norman period in Sicily*, (Cambridge MA 1959), 126, and table at 166.

¹⁷⁵ Caskey, Jill, *Art and patronage in the medieval Mediterranean: merchant culture in the region of Amalfi*, (New York 2004), 128ff.; according to a 16thC account, the church also contained porphyry tombs, presumably of the founding family, the Afflitto.

concerned with authority, based on knowledge of ancient Roman and Byzantine traditions.¹⁷⁶

Ibn Jubayr visited Palermo in 1184, and declared it the most marvellous of the works on earth. This was perhaps because he saw the Duomo building, and learned how speedily it was going up, but surely also because he felt affinity with what he saw. For Giuseppe Bellafore believes the mosque was what became the Norman Chapel of SM l'Incoronata, with old columns.¹⁷⁷ That is, the earlier Duomo was converted into the mosque, then with some of the pieces re-used again in the Norman rebuild. Ibn Jubayr also mentioned a continuous portico from the Royal palace to the Cathedral, and Bellafore notes the existence of such passages at Medina (mosque to house of Abu Bakr), Damascus (mosque and palace), and Córdoba (ditto). Everywhere these have disappeared except at Madinat Al-Zahra, where traces still remain. If that portico was indeed Islamic, presumably in marble, then this strengthens Bellafore's suggestion that under the Normans it symbolized the joining of secular and ecclesiastical powers, as yet another building-block in the Islamicisation of Norman architecture in Sicily, another being the highly Islamic regalia vestments in Vienna.

To see where the environment into which elements of the dismantled mosque and Islamic palace may have gone, we must turn to the Norman Palace, and to the pleasure-palaces of the Zisa and Cuba, all of which demonstrate how extensive and dazzling the Norman rebuild was. The Cappella Palatina is rich in marble in its decoration and treasury,¹⁷⁸ with an extravagant use of porphyry on walls and floor (it even decorates the front panel of the ambo) in designs some of which are Islamic. It serves to remind us what the whole palace might have looked like, given that only the much-reworked Stanza di Ruggiero survives. Indeed, the Cappella underlines the exquisite quality of the workmanship, including the three chevronned columns supporting the ambo—a design unknown in ancient Rome, and perhaps derived from Islamic fountains. There the water sometimes runs over a chevronned sadirvan to make the water sparkle: here in the Cappella the device

¹⁷⁶ Torp, Hjalmar, "Politica, ideologia e arte intorno a re Ruggiero II," in Quintavalle, Arturo C. ed., *Medioevo: immagini e ideologie*, (Milan 2005), 448–58.

¹⁷⁷ Bellafore, "Palermo dalle origini alla maniera," 158.

¹⁷⁸ *Tabularium Regiae ac Imperialis Capellae Collegiatae in Regio Palatio Panormitano*, (Palermo 1835), inventory of 1309, 98 includes "Item Altaretta duo, quorum unum est de porfido, et aliud de marmore albo munita ligno. Item Altaretta duo, quorum unum era de alabastro, et aliud est de Jaspide alba."

has the same effect on the marble. The Zisa¹⁷⁹ (with its own sadirvan in the fountain room) demonstrates that the royal taste was Islamic, for its parentage is with Mshatta, Ukhaider, Fustat or Samarra rather than with anywhere further north.¹⁸⁰ (The Alhambra and the Generalife provide a later, working illustration of such a palace setup.) The fountain room once contained, for example, a low marble table supported on four marble capitals, so the king must have sat on cushions to eat or write at it, perhaps contemplating the marble-lined fishpond in the garden, into which the water from the sadirvan flowed (remains of a similar pool survive outside La Cuba).¹⁸¹ Indeed, it is possible that these buildings are inspired by Fatimid Algeria, and surely built by Moslem craftsmen.¹⁸² La Cuba has a foundation inscription, not in marble. It is Islamic in its adaptation of the bismillah, but very Western in its monumental boasting (which is almost never found on Islamic monuments): "In the name of God the clement, the merciful. Halt here and marvel! You will see an outstanding setting by William the Second, outstanding amongst the kings of the Earth... Thus God Almighty, to whom be eternal praises."¹⁸³ The porphyry and the marble throne in the Cappella Palatina connect stone to ceremonial. Dittelbach, aided by descriptions of how they were once located, makes a convincing case for the influence of Byzantine ceremonial in the use here of porphyry roundels.¹⁸⁴ Comparisons with contemporary Islamic ceremonial might also be instructive, just as are Bloom's comparisons with Spain and Morocco for the possible sources of the designs.¹⁸⁵ Porphyry, adopted by the Normans in imitation of the Papacy, furnished not only their churches but also their tombs, so that the Duomo houses a collection of vessels that must in its day have rivaled that of the Holy Apostles in Constantinople. Apparently no suitable antique vessels were available,

¹⁷⁹ Caronia, Giuseppe, *La Zisa di Palermo. Storia e restauro*, (Bari 1982).

¹⁸⁰ Staacke, Ursula, *Un palazzo normanno a Palermo: la Zisa. La cultura musulmana negli edifici dei Re*, (Palermo 1991), 123–201 for comparanda; 185–201: Irfiqiya in the formation of Sicilian Norman architecture—i.e. façade elements, and inscriptions.

¹⁸¹ Caronia, Giuseppe, & Noto, Vittorio, *La Cuba di Palermo (Arabi e Normanni nel XII secolo)*, (Palermo 1988), 227 for the water arrangements, set in a mosaic floor.

¹⁸² dvd_fatimid_algeria.doc.

¹⁸³ Amari, Michele, *Le epigrafi arabiche di Sicilia*, (Palermo 1875), 73.

¹⁸⁴ Dittelbach, Thomas, "Der Dom in Monreale als Kronungskirche. Kunst und Zeremoniell des 12. Jahrhunderts in Sizilien," *ZKq* 62.4 1999, 464–93.

¹⁸⁵ Bloom, Jonathan M., "Almoravid geometric designs in the pavement of the Cappella Palatina in Palermo," in O'Kane, Bernard, ed., *The Iconography of Islamic Art: Studies in Honour of Robert Hillenbrand*, (Edinburgh 2005), 61–80.

so new tombs were created, arguably from column-stumps. Those made after 1154, however, are constructed from plain sawn slabs, indicating the scarcity value of the material. Roger II wished to be buried in a porphyry sarcophagus in Cefalù, where he had two such set up in the choir, but these were later transferred to Palermo.¹⁸⁶

The Cappella Palatina is Arabic in inspiration, but the Martorana, built for a Greek (George of Antioch, hence SM del Ammiraglio) is little different in its clothing of gold mosaic gilded capitals and red and green porphyry, even having two porphyry columns and similar (reworked?) lateral walls. Ibn Jubayr thought the church a marvel, especially its veneers in coloured marble, and the coloured marble columns supporting its campanile. When he saw it, the campanile apparently also had columns supporting a cupola, but these were brought down in an earthquake in 1726.¹⁸⁷

So apart from insertions in the Norman monuments, what happened to much of the old materials from Roman Sicily? There is just a possibility that Palermo sold some of her antiquities, since the decline in her fortunes in the 12th century (when trade went directly to Egypt instead of to her as an entrepôt), means her fading from what documents we have of Mediterranean trade.¹⁸⁸ If the Normans obliterated Roman structures on the island (which would seem strange given their use of antiquities elsewhere),¹⁸⁹ there are no specific accounts, and little narrative evidence. But Sicily is a half-way-house between North Africa (the source of some of its architectural inspiration)¹⁹⁰ and the upper reaches of the Italian peninsula. It might be (by definition there is no evidence) that the Muslims built badly in Sicily. Henri Bresc posits that they built in pisé as everywhere else except Córdoba, perhaps for economic reasons, whereas the Christians used cut stone.¹⁹¹ But Islamic

¹⁸⁶ Houben, Hubert, *Roger II of Sicily: a ruler between East and West*, (Cambridge 2002), 133.

¹⁸⁷ De Simone, Adalgisa, "Palermo nei geografi e viaggiatori arabi," 156.

¹⁸⁸ Goitein, S.D., "Sicily and southern Italy in the Cairo Geniza documents," *Archivio storico per la Sicilia orientale* 67 1971, 9–33; see 16.

¹⁸⁹ And their looting: cf. Mariani, Calo, "Sulle relazioni artistiche fra la Puglia e l'Oriente latino," *Roberto il Guiscardo e il suo tempo: relazioni e comunicazioni nelle prime giornate normanno-sveve*, (Rome 1975), 35–66; see 60: 45: for the booty at the taking of Barbastro.

¹⁹⁰ Mazot, Sibylle, "L'architecture d'influence nord-africaine à Palerme," in Barucand, Marianne, ed., *L'Egypte Fatimide: son art et son histoire*, (Paris 1999), 665–79.

¹⁹¹ Bresc, Henri, "Les rues de Palerme 1070–1460," *Le Paysage urbain au Moyen Age*,

regimes were wealthier than Christian ones, so tradition rather than poverty seems a better reason for the continuation of such building techniques. In any case, as we have already seen in Islam, fixtures were far from fixed, including columns, mosaics and veneers, the result perhaps being that such decorative embellishments were simply taken over by the Normans and relocated in their own antiquities-rich monuments.¹⁹²

Little was apparently left by the 15th century, when Palazzo Aiutamicristo makes do with some much-bruised capitals and miscellaneous shafts. There is no record of any migrating to North Africa or Syria, but the *Chronicon Amalfitanum* notes that in 1072 Robert the Guiscard besieged Palermo, took it, and carried off spoils including columns to Troia.¹⁹³ He was helped by Pisa, and a local tradition maintains that this provided booty for the building of their Duomo. The exteriors of the two cathedrals are similar in parts, but nowhere is it explicitly stated that the Pisans carried off marble.¹⁹⁴ The Guiscard also sent gifts to Montecassino, which included a large carpet and Arabic hangings (which must have been silk) as well as 13 Saracens.¹⁹⁵ If these came from Palermo, was marble included among the gifts, and were the Saracens perhaps marble workers?

Actes du XI^e Congrès des Médiévistes, (Lyon 1981), 155–86, excerpted in Guichard, Pierre, *L'Espagne et la Sicile musulmanes aux XI^e et XII^e siècles*, (Lyon 1990), 72.

¹⁹² Pensabene, *Contributo*, 59ff.; for overview; 92ff. for Cefalù, 95ff. for Monreale.

¹⁹³ Schwarz, Ulrich, *Amalfi im frühen Mittelalter: (9.–11. Jh.): Untersuchungen zur Amalfitaner Überlieferung*, (Tübingen 1978) with a section on the *Chronicon Amalfitanum* at 111ff., and an edition of the text 195ff.; see 214: “Et exinde portas ferreas et columnas marmoreas quamplures cum capitibus afferri fecit in Troiam in signum victoriae suae;” Romualdo of Salerno’s text, printed in tandem, is almost identical. Pensabene, *Contributo*, 36ff. Gnoli, *Marmora*, 52 maintains that the columns and other marbles in Salerno formed part of the Guiscard’s war booty. These must have been a pious gift for the church, for the area had plentiful antiquities: cf. ActaSS 11 February, Bishop Secundinus: the people “pars marmoribus tabulandis, pars lapidibus poliedis, fodiedis lateribus alij, alij diuersis laboribus, monumentum pretioso tabulatum marmore reperitur.”

¹⁹⁴ For the Romanitas of Pisa cf. Salvatori, Enrica, “Pisa in the Middle Ages: the dream and the reality of an empire,” in Steven, E., ed., *Empires and States in European Perspective*, (Pisa 2002), 13–38—on the web at http://www.stm.unipi.it/ClioH/tabs/libri/6/02-Salvatori_13-32.pdf.

¹⁹⁵ Amari, *Musulmani di Sicilia*, III.142–3.

Amalfi, Montecassino and Salerno

These three locations represent a tight triangle of influence, each helping our understanding of the others. Benevento might also be included,¹⁹⁶ given its place as a centre of culture.¹⁹⁷ The story starts in Amalfi, which had active trade relations with the Arab world, not least because of Arab raids throughout southern Italy, including Salerno.¹⁹⁸ Arab raiders used the amphitheatre at Capua and the temples at Paestum as bases, but some probably settled, for there are 9th-century transactions in the region witnessed by people whose names are probably Arabic.¹⁹⁹ Amalfi was an emporium for the purchase of luxury goods from the East,²⁰⁰ an activity hymned by Guglielmo di Puglia,²⁰¹ and documented from Jerusalem from the later 10th century.²⁰² Ibn Hawqal, writing in the second half of the 10th century, says Naples is a beautiful city—but not as important as Amalfi. Indeed, Jewish traders from Kairouan found it a good place to over-winter.²⁰³ Together with Naples, Gaeta, Amalfi and Salerno, as well as the Bishop of Capua and the Prince of Benevento, Amalfi set up a truce with the Saracens of Palermo and Kairouan which annoyed Pope John VIII,²⁰⁴ just as

¹⁹⁶ Ponari, Filippo, *Ricerche storiche sulle antichità di Cassino*, (Naples 1867), 132f. parallels the re-use at the Montecassino of Gisulf II Duke of Benevento with his S. Sofia.

¹⁹⁷ Kreutz, Barbara M., *Before the Normans: southern Italy in the ninth and tenth centuries*, (Philadelphia 1991), 140–4.

¹⁹⁸ Berto, Andrea, “I musulmani nelle cronache altomedievali dell’Italia meridionale (secoli IX–X),” in Meschini, Marco, ed., *Mediterraneo medievale: Cristiani, musulmani ed eretici tra Europa e Oltramare*, (Milan 2001), 3–27.

¹⁹⁹ Kreutz, *Before the Normans*, 51f., 54.

²⁰⁰ Citarella, Armand O., “The relations of Amalfi with the Arab world before the Crusades,” *Speculum* 42.2 1967, 299–312; see 300 & 301–2; Balard M., “Les républiques maritimes italiennes et le commerce en Syrie-Palestine (XI^e–XIII^e siècles),” *Anuario de Estudios Medievales* 24 1994 313–348; Mathieu, Marguerite, ed., *Guillaume de Pouille: La geste de Robert Guiscard*, (Palermo 1961), 190, on the riches of Amalfi: “different objects from Alexandria and Antioch. Her inhabitants cross many seas, know the Arabs, Libyans, Sicilians, and Africans, and are very well known in nearly the whole world, carrying their merchandise, and bringing home those they have purchased.” Schaube, *Handelsgeschichte*, 18–26.

²⁰¹ *Gesta Roberti Wiscardi* MGH SS IX.275: “Huc est Alexandri diversa feruntur ab urbe, / Regis Antiochii. Haec freta plurima transit. / Hic Arabes, Libi, Siculi noscuntur et Afri. / Haec gens est totum prope nobilitata per orbem / Et mercanda ferens et amans mercata referre.”

²⁰² Goitein, S.D., “The Mediterranean mind in the High Middle Ages (950–1250) as reflected in the Cairo Geniza documents,” in Pontieri, Ernesto, ed., *Amalfi nel Medioevo*, (Salerno 1977), 179–92.

²⁰³ —On their way home from the East: see Goitein, “Sicily and southern Italy,” 12.

²⁰⁴ Renzi Rizzo, Catia, “I rapporti diplomatici fra il re Ugo di Provenza e il califfo

Naples' close connections with North Africa and Palermo continually alarmed the Papacy.²⁰⁵ In fact the meteoric rise of Amalfi began in the 8th century, and she benefited from the shipping crisis in the following one.²⁰⁶ She had colonies at Antioch in the 9th century, and at Cairo by 996 (fast going, given Cairo's foundation date of 972—although Fustat was already there). She conducted commerce with Mahdiya, Constantinople, Pavia, Rome, Egypt and even Athos, and although she was still a trading power in 1100,²⁰⁷ her reach had declined when the Fatimid conquest made Egypt rather than Tunisia the centre of commercial gravity.²⁰⁸

In other words, Amalfi (and the Papacy, and Tuscany) were well aware of Islamic architecture in the 10th century, thanks to embassies and merchants.²⁰⁹ A glance at the Duomo and its architecture and marble decoration reveals that the important Islamic dimension was not just in trade. A walk round the museum will reveal the large quantities of old columns, capitals, very rich pulpit fragments and sarcophagi collected and used within the church in earlier incarnations. These include slabs from one (or more?) 12th-century pulpits that blend Byzantine and Islamic motifs, and two columns with diagonal cannellations, perhaps from a ciborium. As at nearby Salerno, antique sarcophagi were used for mediaeval burial, and occasionally re-cut with a coat-of-arms. But a new marble sarcophagus was made for the altar within the church, and the 12th-century pulpit refurbished in 1647, so the antique materials were presumably considered out-of-fashion. Domestic architecture was similarly dependent upon several Islamic ideas and forms, and more would perhaps be learned from her archives had not so many of them perished.

'Abd al-Raman III: fonti cristiani e fonti arabe a confronto," in Berti, Graziella, et al., eds., *Il mare, la terra, il ferro. Ricerche su Pisa medievale (secoli VII–XIII)*, (Pisa 2004), 247–77; see 273–4.

²⁰⁵ Kreutz, *Before the Normans*, 72ff.

²⁰⁶ Citarella, Armand O., "La crisi navale araba nel secolo VIII e l'origine della fortuna commerciale d'Amalfi," in Pontieri, *Amalfi nel medioevo*, 195–213; see 200–1, 207.

²⁰⁷ Cahen, Claude, "Amalfi en Orient à la veille, au moment et au lendemain de la première croisade," in Pontieri, Ernesto, ed., *Amalfi nel medioevo*, (Salerno 1977), 271–83.

²⁰⁸ Citarella, "Il commercio di Amalfi," 23–4, 148, 162.

²⁰⁹ Sénac, Philippe, "Contribution à l'étude des relations diplomatiques entre l'Espagne musulmane et l'Europe au X^e siècle: le règne de 'Abd Ar-Rahman III (912–61)," *Studia Islamica* 61 1985, 45–55. 53: "Le fait s'impose, Cordoue est au X^e siècle une capitale méditerranéenne."

But by the time Desiderius of Montecassino visited Amalfi in 1065,²¹⁰ he had already built S. Angelo in Formis (1053),²¹¹ with inside its symmetrical disposition of columns with Flavian Corinthian capitals, 10 of them matching, and a portico supported on stumpy part-shafts. He and his monastery had several connections with Amalfi,²¹² and Leo of Ostia says he went there to purchase gifts for an expected visit to his monastery by Henry IV. Willard believes the visit much impressed him—not only the bronze doors to the Duomo, but also the archbishop's and duke's palaces, plus houses of the rich merchants, churches and monasteries.²¹³ Far from being the first building abbot (cf. Bernward at Hildesheim, William of Volpiano at Dijon, or Oliba at Ripoll, who retired to Montecassino), Desiderius was no doubt helped by the plans of his reforming predecessor as well as by such ultramontane example,²¹⁴ which influenced other church-building in southern Italy.²¹⁵ And the use of marble there goes back at least to Abbot Gisulf (796–817).²¹⁶ Desiderius began his own building program in 1066, which warranted a poem²¹⁷ and a eulogy from Alfano of Salerno.²¹⁸ Both emphasized

²¹⁰ Caskey, *Art and patronage*, 1–2 for what Desiderius saw in Amalfi; 50 for Amalfi's connections with Tunisia and Algeria.

²¹¹ Pensabene, *Contributo*, 14ff.

²¹² Willard, Henry M., *Abbot Desiderius and the ties between Montecassino and Amalfi in the eleventh century*, (Montecassino 1973).

²¹³ Willard, Henry M., “Santa Maria in Duliaria, Johannes Monachus e le possessioni di Montecassino in Amalfi nel secolo undicesimo,” in Pontieri, *Amalfi nel medioevo*, 247–263; see 250.

²¹⁴ Wuehr, W., “Die Wiedergeburt Montecassino unter seinen ersten Reformabt Richer von Niederaltaich (d.1055),” *Studi gregoriani per la storia della “Libertas ecclesiae”* III 1948, 369–450.

²¹⁵ Vultaggio, Claudia, “Civiltà cassinese e dominio normanno,” in Corvese, Felicio, ed., *Desiderio di Montecassino e le basiliche di Terra di Lavoro: il viaggio dei Normanni nel Mediterraneo*, (Caserta 1999), 21–37; and Aceto, Francesco, “Montecassino e l'architettura romanica in Campania. Sant'Angelo in Formis e le cattedrali di Sessa Aurunca e di Caserta Vecchia,” in *ibid.*, 39–50.

²¹⁶ Chronicon, PL173.17: “basilica, marmoreis basibus et columnis 24 hinc inde suffulta . . . Jam vero pavimenti opus, quam speciosum, quam solidum, quam variorum lapidum sit diversitate conspicuum, circuitus etiam chori, quam sit pulchris ac magnis marmorum tabulis septus . . . In medio vero ipsius campanarium valde pulcherrimum super octo magnas columnas erexit.”

²¹⁷ The acrostic poem on the Montecassino rebuild, in de Bartholomaeis, Vincenzo, ed., *Amato di Montecassino, Storia dei Normanni*, (Rome 1935), 175: “Varias quoque Grecia vestes / Dedit artificesque scientes; / Tribuit sua marmora Roma / Quibus est domus ista decora.”

²¹⁸ Archbishop Alfano of Salerno on the splendour of the mosaics at Montecassino: “His alabastra nitere lapis / porphyreus viridisque facit; / his Proconissa pavita simul / sic sibi marmora conveniunt / ut labor hic mare sit vitreum.”

the marbles used, and the imported workmen—but from where? The source(s) do indeed matter because they might be thought to tell us something about local expertise and (marble) materials. Supposedly, Abbot Desiderius imported mosaic workers from Constantinople “peritos utique in arte musiarum et quadratarum” (*Chron. Cas.* 3.27) because the “magistras Latina” had neglected mosaic-making for centuries.²¹⁹ But he also went to Rome, spending freely to collect material for Montecassino, “columnas, bases, ac lilia, nec non et diversorum colorum marmora abundanter coemit,” all transported “with great labour” by land and sea. Indeed, some were carried up to the site on the backs of the faithful (*Chron. Cas.* III 26, 717). Bloch, for one, once believed that there were indeed suitable craftsmen in Rome by this date (that is, before the Cosmati),²²⁰ but later wrote that Greek expertise was needed to help Desiderius re-create Early Christian mosaic.²²¹ Another chronicled source coupled with Constantinople was Alexandria, which was certainly a trading post for nearby Amalfi.²²² Given that Giuliano perceives Fatimid features in the floor,²²³ perhaps the reference to Constantinople is a topos. But whatever the source(s), the impact of Desiderius’ work is clear,²²⁴ and includes an ill-advised expansion at

²¹⁹ Maguire, Henry, “The medieval floors of the Great Palace,” *Byzantine Constantinople*, 153–74; see 164–6: the author of the *Vita Basilii* refers to floors ringed with “spokes,” which to Maguire suggests comparison with the floor at Montecassino, 1071ff; Andaloro, Marco, “L’abbaye du Mont-Cassin. Sur les traces d’un édifice disparu,” in Aceto, Francesco et al., eds., *Chantiers médiévaux*, (Paris 1996), 53–70. Giuliano, Antonio, “Manda in Costantinoble e in Alexandre por homes grex et sarazins,” in his *Studi normanni e federiciani*, (Rome 2003), 11–24 for Desiderius and his commissions, plus Islamic influences.

²²⁰ Bloch, Herbert, “The new fascination with ancient Rome,” in Robert, Louis, & Constable, Giles, eds., *Renaissance and renewal in the twelfth century*, (Oxford 1982), 615–36; see 617 note 5.

²²¹ Bloch, Herbert, *Monte Cassino in the middle ages*, (Cambridge MA 1986), 92.

²²² Bartholomaeis, V. de., ed., *Amato di Montecassino, History of the Normans*, (Rome 1935), 175–6 & notes on Desiderius, “manda en Costentinoble et en Alixandre por homes grex et sarrazins; pour aorner lo pavement de la eglise de marbre entaillé et diverse peintures, laquelle nous clamons “opere de mosy”;ovre de pierre de diverses colors”—so perhaps the Muslims were recognized as masters of marble art? And did they make the (presumably figured) mosaics? In this account some of his columns came from Rome, 200: “Et la sapience de lo abbe Desidere avoit fait venir colompnes de Rome pour appareiller l’eglise.”

²²³ *Giuliano, Antonio, “Manda in Costentinoble e in Alexandre por homes grex et sarazins,” in Torella, Raffaele, ed., *Le parole e i marmi. Studi in onore di Raniero Gnoli*, (Rome 2001), 939–62; 944 and comparative illustrations.

²²⁴ Claussen, “Marmi antichi,” 67–8; cf. fig. 24: both jambs and cornice of the main door were antique, only the cornice being reworked with mosaic.

Farfa in 1097ff., replacing a 9th-century building which already “shone from colorful stone revêtement.”²²⁵ This was the work of Abbot Siccardus (830–42), some of whose marble capitals were used in the later building.²²⁶ Muslim reflections are found in the five pointed arches of the porch, which Cowdrey rightly refers to Mahdiya.²²⁷ Desiderius certainly had knowledge of the planning of the Mahdiya Campaign during which the Pisans conceivably returned with marble as well as gold. His finished abbey, and S. Vincenzo (remodeled 1053–76), were the trigger for other remodelings.²²⁸ Montecassino’s influence, including its use of antiquities, was extensive.²²⁹ But did Desiderius’ old materials all come from afar? If local construction skills had declined since the ex-Roman tomb that was the Chiesa del Crocifisso, the Chiesa delle Cinque Torri at Cassino has good if varied old columns and capitals. So are we dealing once more with a part-topos—with the snobbery of importing from afar, as the Venetians did?

Amalfi also had an impact even closer to home than Montecassino. Already in the 8th century her Duomo was spectacular, judging from the plutei conserved in the Chiostro del Paradiso. If Kreutz is correct that the city had a special relationship with Islam documentable from the 9th century,²³⁰ perhaps the influence on their building in the previous century was as much Islamic as Byzantine. For the Duomo was far from being the only 12th-century church in the area with fine old columns. The Duomo has many,²³¹ and both S. Giovanni del Toro and the crypt of the Duomo at Ravello have monoliths of modest proportions. But S. Maria a Gradillo at Ravello boasts 5-metre-plus monoliths plus a re-used cornice block to the entrance, and the Chiesa dell’Annunziata at Minuto has shafts of over four metres. In the Duomo of Scala, even the monoliths in the crypt are over five metres, supporting a Gothic-

²²⁵ McClendon, Charles B., *The Imperial Abbey of Farfa. Architectural currents of the early Middle Ages*, (New Haven & London 1987), 8, 109ff.

²²⁶ Betti, Fabio, “Sculpture altomedievali dell’Abbazio di Farfa,” *Arte Medievale* II VI.1 1992, 1–40 for a wide-ranging comparative account, and a catalogue of the 56 pieces, mostly from this period.

²²⁷ *Cowdrey, Herbert Edward John, *The age of Abbot Desiderius: Montecassino, the papacy, and the Normans in the eleventh and early twelfth centuries*, (Oxford 1983), 15.

²²⁸ Delogu, Paolo, “Patroni, donatori, committenti nell’Italia meridionale longobarda,” *Committenti e produzione artistico-letteraria nell’alto medioevo occidentale*, (Spoleto 1991), I, 303–39; see 315ff.

²²⁹ Glass, Dorothy F., *Romanesque sculpture in Campania: patrons, programs and style*, (University Park PA 1991), 11–34. Pensabene, Patrizio, “Marmi e reimpiego,” 11ff.

²³⁰ Kreutz, *Before the Normans*, 79–84.

²³¹ Pensabene, Patrizio, “Marmi e reimpiego,” figs 27–33.

style vault—so presumably a rebuild. Scala was supposedly a Roman settlement, so did they come from Scala itself? All these settlements are on the sea, so perhaps the monoliths were imported. Certainly, the taste for the exotic at Ravello includes ceramics from Syria and Egypt in the Duomo pulpit, commissioned c. 1130. These are high-quality wares, and at least two generations old,²³² so presumably valuable. The pulpit in Ravello's S. Giovanni del Toro has similar insertions, but spanning about 200 years. Such sophisticated imports highlight the surely luxury status of the famous Pisa *bacini*, and underline the mediaeval thirst for rarity and colour—seen now in marble, now in glass and in glazed ceramics.²³³ We might surmise that the Amalfitana's import of such luxuries was some kind of celebration of her trading reach, as reflected in her wealth—which might be one reason why Venice (see below) also got her marble from the East, as well as her ideas of sophistication. (Did the West know about the use of ceramics in structures such as Alaeddin Keykubad's Kubadabad Palace, of 1220ff.?) But it seems likely that the use of decorative *bacini* might have been started by the Romans, who could therefore be the source for their use in the West, Byzantium and Islam.²³⁴ Nevertheless, given the spread of the fashion, it is probable that the Christians introduced it from Islam, possibly via Spain, where there are conspicuous (if late) survivals in Aragón, which might have re-used minarets from before the Christian conquest of 1120.²³⁵ By this date, of course, *bacini* were common in S. Italy (Amalfi, Terracina), and are also to be found in Greece (e.g. S. Maria at Malvesin, Crete).

At Montecassino we need not doubt that the rhetoric of the architecture, including the marble,²³⁶ was about possession. As Delogu reminds us of the Abbot, “building was considered a qualifying function of

²³² That is, “high-art, high-tech elite wares that would have been worth a great deal of money—but then so would the other raw materials being used, such as imported stone and glass”—personal communication from Dr Robert Mason; cf. his <http://www.utoronto.ca/nmc/mason/italy.html>.

²³³ *dvd_bacini_roundels.doc*.

²³⁴ Peña, J. Theodore, *Roman pottery in the archaeological record*, (Cambridge 2007), 207–8 for such decorations on *insulae* at Ostia.

²³⁵ Sanmiguel Mateo, Agustín, *Torres de ascendencia islámica en las comarcas de Calatayud y Daroca Aragón (España). Estructura, decoración y relaciones con otras torres islámicas de Oriente y Occidente*, (Calatayud 1998); Priester, Ann, “The Italian campanile: where did it come from?” in Colella, Renata L., et al., eds., *Pratum Romanum: Richard Krautheimer zum 100. Geburtstag*, (Wiesbaden 1997), 259–275.

²³⁶ Pantoni, Angelo, *L'acropoli di Montecassino e il primitivo monastero di San Benedetto*, (Montecassino 1980), 43: fig. 30 for reused block from the Temple of Jupiter; fig. 48 for an antique cippus Christianised by the addition of a cross, and fig. 52 for an Ionic capital similarly treated.

authority, which proclaimed his attitudes to providence, protection and religion.”²³⁷ For not only did Desiderius list the Abbey’s properties on his bronze doors, but he used stone lions to mark the confines of the Abbey’s territories.²³⁸ This suggests he was conversant with antique practice,²³⁹ and of course such markers are a staple of mediaeval documents²⁴⁰ and descriptive accounts.²⁴¹ In architectural and historical terms, the new Abbey gained prestige from the (re-)discovery of Benedict’s relics. These were proclaimed during the levelling of the site, probably in 1068, placed in a marble sarcophagus,²⁴² and covered with an altar of Parian marble. Moreover, Desiderius’ church had various similarities with Old S. Peter’s, of which he was cardinal-priest.²⁴³ Only a third the size of the paragon (partly due to the bedrock site), the church compensated by being exceedingly rich in marble. De la Bunodière visited Montecassino in 1909, and found the church a marvel, with walls and floors covered with the rarest marbles, with eight mosaic steps to the sanctuary and, by the tombs of Benedict and Scholastica, more mosaics with shining verde antico, lapis lazuli, mother-of-pearl, and brocatello from Spain.²⁴⁴

Francis Newton suggests another dimension of re-use, namely that Desiderius could have viewed the antiquities-rich local landscape via the text of an ancient MS in the library. Guaiferius described the ancient city of Aecae in terms borrowed from an Apuleius MS which had not been cited for centuries, so that “the hagiographer was handling ‘spolia’ as rare as any that the builders around him were using.” Ingeniously, the text described surviving monuments (“antiquissima fuit, cum et

²³⁷ Delogu, “Patroni, donatori, committenti,” 323.

²³⁸ Décarreaux, Jean, *Normands, papes et moines: cinquante ans de conquêtes et de politique religieuse en Italie méridionale et en Sicile (milieu de XI^e siècle-début du XII^e)*, (Paris 1974), 56, 64: “en monument d’airain, la liste des possessions cassiniennes.”

²³⁹ Cf. Esch, Arnold, “Antike in der Landschaft: Römische Monumente in mittelalterlichen Grenzbeschreibungen um Rom,” in Striker, *Architectural studies in memory of Richard Krautheimer*, 61–5.

²⁴⁰ Cf. *Regii Neapolitani Archivi Monumenta edita ac illustrata*, V, (Naples 1857), 207: AD 1094 a document marking out boundaries refers to a location “a Casali marmorum” and “usque ad viam publicam dicti Casalis marmorum unde inceptum est”—perhaps a marble tomb on an antique road, or a tower of some kind built of marble.

²⁴¹ Esch, Arnold, “Monumenti antichi nelle descrizioni medievali dei confini nei dintorni di Roma,” *Arte Medievale* 11 2003.2, 9–14.

²⁴² *Rilavorazione*, 18–9: “scolpito probabilmente, comunque di alto valore simbolico.”

²⁴³ Cowdrey, *The age of Abbot Desiderius*, 14–15.

²⁴⁴ De la Bunodière, Henri Marie Maximilien, *Une visite au Mont-Cassin, 13 Avril 1909*, (Rouen 1910), 10–11.

monumentorum marmoratio, scenarum columnatio, eminentia culminum id designent”), introduced the discovery of the relics, and tied the written word in the manuscript to the surviving monuments. Yet more, there was in the area a marble inscription the citizens noticed. We are told they wanted to read it: “Quod dum curiosis oculis collustraretur, propter magnam que circum erat frequentorum sepulcrorum, advertunt dumis celatum epigramma, exesis iam inferioribus partibus; sed, quod legi poterat, hec ferebat.” Newton’s ingenious aperçu (a subset of the much more common literary spolia)²⁴⁵ provokes the thought that some of the manifold illustrations of shining marble in mediaeval MSS (of evangelists’ thrones, fountains, buildings) might sometimes be equally clear if imaginatively embellished references (for those in the know) to antiquities in the area where the MS was written.²⁴⁶ It is not necessarily the case that such marble visions ever got built, and there is a parallel for this point in the 11th-century Exultet Scroll from Montecassino now in the British Museum (Add.Ms 30337). For whereas all surviving pulpits in the area are of a more-or-less standard pattern, for three illustrations in this scroll we can surely posit Islamic influence, for in all three the emphasis on the stairs, and the varied decoration (all of which could be inlaid wood), point to minbars as a direct influence.

If Amalfi led the way and Montecassino capitalised on her trans-Mediterranean connections, then Salerno²⁴⁷ survives as a vigorous echo of Desiderius’ work. The city continues a tradition of re-use, including incastrating stelae in churches.²⁴⁸ Together with Pisa, she espouses monumental inscriptions with a political message—a veritable epigraphic revival.²⁴⁹ Her contacts with North Africa might even antedate those of Amalfi, for supposedly an African Arab merchant (Harrani) met the prince of Salerno, Waifar, in the market—perhaps a commonplace commercial contact.²⁵⁰ Unfortunately, little is known of the Duomo

²⁴⁵ Hansen, *Eloquence of appropriation*, 168–72.

²⁴⁶ Newton, Francis, *The scriptorium and library at Monte Cassino, 1058–1105*, (Cambridge 1999), 288; for a broad view cf. Stansbury, Mark Jackson, *Collected works. “Spolia” and Latin textual culture, 500–900*, PhD (Boston College 2002), from the Abstract: “Texts assembled from “original” and “borrowed” material are characteristic of late-antique and early-medieval written culture... served... as a means to codify authority, disseminate texts, and create community.”

²⁴⁷ Pensabene, *Contributo*, 19ff.

²⁴⁸ E.g. Teggiano, Duomo di S. Maria, which has 6 stelae.

²⁴⁹ Petrucci, Armando, *Public lettering: script, power, and culture*, (Chicago 1993), 3; plate 1 for Guiscard’s foundation inscription at Salerno.

²⁵⁰ McCormick: *Register*, 610, dated sometime before August 870.

before its present, Norman incarnation, but this is very impressive. It has an arcaded atrium of old columns and capitals,²⁵¹ and two highly elaborate ambones. There is also an old sarcophagus and throne for Gregory VII,²⁵² the former with bucrania and swags, its central tabula ansata re-cut with the Keys of S. Peter. The atrium shelters a large collection of sarcophagi, re-cut and re-inscribed as necessary, although the strangest is inside, in the south aisle—a mythological vessel with a new marble effigy of a knight for its lid. The main door has a recut antique architrave with stylish inscription,²⁵³ prompting one to wonder how many stylish Romanesque door jambs and lintels (such as those at Grottaferrata) might have been cut from antique blocks, as well as inspired by them. Given the context, the documented existence of Moslems in the area, and the influences on the acanthus capital in Italy,²⁵⁴ the monumental inscription is as likely to be in competition with Moslem ones as to be some antiquarian reference back to ancient Rome. Just as Desiderius was a driving force for Montecassino, so was Archbishop Alfano, with his knowledge of Cluny as well as of Montecassino, Benevento and Salerno.²⁵⁵ His broad intellectual reach²⁵⁶ helped stamp an international character on Salerno's architecture, just as the translation here of the relics of S. Matthew perhaps helped trigger the later vogue for burial in imported sarcophagi.

Braca maintains that the Guiscard imposed a political and ideological program just like Charlemagne before him and Frederick II afterwards (to which list we should add Desiderius). Explicit references to *romanitas* were loaded with ideological overtones, even to calling Salerno "Urbs." Hence the sarcophagi could be in the atrium for a similar reason, namely to act as a pantheon. Connections with Jerusalem were implicit in the marble,²⁵⁷ particularly for those once in the corridor next to the right

²⁵¹ Pensabene, *Contributo*, 81ff.

²⁵² *Rilavorazione*, Cats 17 & 19.

²⁵³ A DUCE ROBERTO DONARIS APOSTOLE TEMPLO / PRO MERITIS REGNO DONETUR IPSE SUPerno.

²⁵⁴ Raspi-Serra Joselita, "Le chapiteau d'acanthé en Italie entre le V^e et le X^e siècle," *Acanthus Colloquium*, 174–188—emphasizes the changes brought about to the Roman model by influences from the Near East and N Africa.

²⁵⁵ Taviani-Carozzi, Huguette, "Salerno longobarda: una capitale principesca," in *Taviani-Carozzi, Huguette, Vetere, Benedetto, & Leone, Alfonso, eds., *Salerno nel Medioevo*, (Galatina 2000), 5–53, for an overview with plans of the city.

²⁵⁶ Vetere, Benedetto, "Cattedrale, Santo patronato e cives," in *ibid.*, 55–95; 68ff. for the translation of relics; 77ff. for S Matteo and Arechi's S Sophia at Benevento.

²⁵⁷ Goitein, "The Mediterranean mind," 187 for the reminder that the Normans were on their way to Jerusalem but stopped off to conquer S Italy instead.

aisle called the Cimitero della Terra Santa,²⁵⁸ while an antique link was perhaps intended via the rich and very Roman-looking opus sectile work inside.²⁵⁹ Re-use is widespread in Salerno churches (such as SM del Domno), and begins early thanks both to princes and clerics. Abbot Terdinario imported ancient materials in 778–9, and the Longobard ruler Arechis II (d.792) likewise to both Salerno and Benevento,²⁶⁰ some of it in a clear Byzantine manner, as in the mosaic pavement fragments surviving from his Palatine Chapel in Salerno.²⁶¹ Wolf quotes Amatus' account of how the Normans arrived in 999 after visiting the Holy Sepulchre, and helped drive off the Saracens.²⁶² No doubt they were impressed by *Opulentia Salernum* proclaimed on his coins by Duke Guaimar III (d.1030?), for surviving fragments of the palace remind us that old columns and capitals, and mosaic pavement, were not confined to the Duomo.²⁶³ Indeed, columns and capitals are still displayed on houses in the city, while the fabric of the 15th-century Palace of the Queen of Durazzo (now the Museo Archeologico Provinciale) displays plentiful antiquities, surely from an earlier structure in the site.

But it does seem to be the Normans who encouraged the fashionable use of marble sarcophagi to take hold for, although there are antedating MS illustrations, the first sarcophagus burial is thought to be that of Roger I in 1101.²⁶⁴ Delogu notes that the Duomo had a marble fascia panel with bronze letters, fixed perhaps with bronze nails, in clear imitation of ancient monuments.²⁶⁵ If in place for the consecration of 1084, this is almost contemporary with the Bab Al-Futuh in Cairo (1087/92) with its enormous marble inscription also fixed with bronze nails.

²⁵⁸ Braca, Antonio, *Il duomo di Salerno: architettura e culture artistiche del Medioevo e dell'età moderna*, (Salerno 2003), 101–2.

²⁵⁹ Carucci, Arturo, *I mosaici salernitani nella storia e nell'arte*, (Cava dei Tirreni), 1983, plates 52 & 53.

²⁶⁰ Delogu, P., *Mito di una città meridionale: Salerno, secoli 8–11*, (Naples 1977), 54ff; cf. Leo Ostiensis, Chron. 1.ii.

²⁶¹ Castelfranchi, Marina Falla, "Arechi II e Giustiniano," in Quintavalle, Arturo C. ed., *Medioevo: immagini e ideologie*, (Milan 2005), 83–9.

²⁶² Wolf, Kenneth Baxter, *Making history: the Normans and their historians in eleventh-century Italy*, (Philadelphia 1995).

²⁶³ Amarotta, Arcangelo R., *La cappella palatina di Salerno (Un documento lombardo nell'ipogeo di S. Pietro a Corte)*, (Salerno 1982); *Brogiolo, Gian Pietro, "Capitali e residenze regie nell'Italia longobarda," in Ripoll, Gisela, & Gurt, Josep M., eds., *Sedes Regiae (ann. 400–800)*, (Barcelona 2000), 135–62—incl fig. 7 for polychrome paving tesserae from its pavement.

²⁶⁴ Braca, *Il Duomo di Salerno*, 103.

²⁶⁵ Delogu, "Patroni, donatori, committenti," 319.

Apulia: Bari and Trani

If the west-facing coast of the peninsula was keen on marble, then so was Apulia, facing antique sites across the Adriatic (a taste she shared with Campania).²⁶⁶ She was nearer than Salerno or Pisa to the Byzantine homelands which had so influenced her development, as well as to what was now the Islamic East, which provided her sculptors and architects with inspiration.²⁶⁷ The cult of saints and pilgrimage caused large churches to be built, such as S. Nicola at Bari, and S. Nicola Pellegriano at Trani. Both display large quantities of imported materials, not just for the upper churches, but also for the crypts, of which Trani has two. The crypt of S. Nicola embraces lofty columns, unlike the much squatter crypt of SM della Scala in the same church; but many of these are artificially pieced, including those framing the altar, so that the final effect offers shafts which seem almost Gothic, for they are too slender to look Roman. A similar svelteness infects the paired shafts in the upper church, also pieced, and which also look “wrong.” For reasons unknown, and except for the panel in the crypt at Bari, sarcophagi were shunned, although plenty were available in the church and environs of Myra, the source of the saint’s relics.²⁶⁸ It is axiomatic in mediaeval arrangements that, the closer to the body of the saint, the more luxurious the marble. At Trani as at Bari, therefore, the best columns and capitals are in the crypts, because the smaller and more slender columns and capitals to fit (if not to match) were more plentiful. In Pensabene’s view, the pieces have been carefully chosen, probably from quite recent Byzantine-influenced buildings, hence demonstrating both the existence of Byzantine continuity and builders’ interest in it.²⁶⁹ But in the upper church the nave is a different story. Here, the four-metre-plus monoliths are extensively patched, and doubled up to support the matroneum (which has smaller, more elegant marble). Did

²⁶⁶ Pensabene, P., “Nota sul reimpiego e il recupero dell’antico in Puglia e Campania tra V e IX secolo,” *Incontri di popoli e culture tra V e IX secolo*, (Benevento 1998), 181–231.

²⁶⁷ Bornstein, Christine V., “Romanesque sculpture in Southern Italy and Islam: a revaluation,” in Goss, Vladimir P., & Bornstein, Christine V., *The meeting of two worlds: cultural exchange between east and west during the period of the Crusades*, (Kalamazoo MI 1996), 285–93.

²⁶⁸ Borchardt, Juergen, ed., *Myra. Eine Lykische Metropole in antiker und byzantinischer Zeit*, (Istanbuler Forschungen 30), (Berlin 1975), 162–251.

²⁶⁹ Pensabene, Patrizio, “Capitelli bizantini e bizantineggianti della cripta del duomo di Trani,” in Barsanti, Claudia, et al., eds., *Bisanzio e l’Occidente: arte, archeologia, storia: studi in onore di Fernanda de’ Maffei*, (Rome 1996), 375–403; see 392ff.

S. Costanza in Rome, with its doubled columns supporting the dome, start the vogue? Or does the idea come from Kairouan? There are few high-quality antique capitals, the majority being simply roughed out blocks. The upper church at Bari also has some doubled pairs in the nave, and some splendid single monoliths toward the altar, as well as some fine capitals (some recut). In the crypt, the restricted height meant it was easier to find splendid shafts, so the variety of columns is a colourful lesson in marble typology. The capitals are a mix of contemporary with Roman and Byzantine, again with some recutting. The shrine of the saint was given a mosaic floor in pseudo-Islamic patterns, rich in red and green porphyry, and in giallo antico—as splendid as possible, and still largely intact. Conceivably, it is Bari's example that encouraged large-scale imports from the East in Venice.²⁷⁰

Pisa

Pisa has an enormous Duomo, rich in some old marble²⁷¹ and much larger quantities of limestone.²⁷² It re-uses architraves, and blends old capitals with newly-carved ones (some newly carved examples from antique capitals are in the Museo del Duomo). It has decorative connections with Islam, such as Mshatta and Córdoba,²⁷³ some of which are clear from survivals in the Duomo museum rather than from the refurbished material on the façade. With its inscriptions, its Campanile and Baptistery, and its Campo Santo with the largest collection in Italy of translated and re-occupied sarcophagi (many once displayed on the flanks of the Duomo), the ensemble can leave the alert visitor—especially one gazing at the 6m+ shafts in both Duomo and Baptistery—in no

²⁷⁰ *Salvatore, Mariarosaria, & Lavermicocca, Nino, "Sculpture altomedievali e bizantine nel museo di S. Nicola di Bari. Note sulla topografia di Bari bizantina," *Rivista dell'Istituto Nazionale d'Archeologia e Storia dell'Arte* III 1981, 93–135.

²⁷¹ Overviews in Peroni, Adriano, "Spolia e architettura nel Duomo di Pisa," in Poeschke, *Antike Spolien*, 205–17; and Tedeschi Grisanti, Giovanna, "Marmi lunensi di età romana reimpiegata a Pisa durante l'alto medioevo," *Acta Apuana* IV–2005–2006, 29–33.

²⁷² Fabiana, P., Mennucci, A., & Nenci, C., "Indagini sui paramenti murari esterni del Duomo di Pisa: rapporto preliminare," in Gelichi, S., ed., *I Congresso Nazionale di Archeologia Medievale*, (Florence 1997), 449ff. (online at <http://archeologiamedievale.unisi.it>) for details of the building materials; *ibid.*, figs 7 & 8 for the location of re-used elements, inscriptions and substitute-pieces on the south & north flanks. Pensabene, *Contributo*, 9.

²⁷³ Sanpaolesi, Paolo, "La facciata della cattedrale di Pisa," *Rivista Ist. Naz. Archeologia e Storia dell'Arte* V–VI 1956–7, 248–394; 305ff., 318ff., 284ff.

doubt about its artistic priorities during its years of glory, nor yet its engagement in the Mediterranean.²⁷⁴ Thus a Venetian source describing the fleet action with Pisa in 1100, wrote that “they bore themselves as if they were the lords of the world.”²⁷⁵ Similarly, a 12th-century Arabic source admires their ability in building mangonels (not cathedrals).²⁷⁶ Unsurprisingly, then, the only Arabic description we have of the city is more interested in shipping and bridges than the Duomo,²⁷⁷ perhaps during the years when the mosaic floor of the Baptistry was being set within Islamic patterns. The workshop of Rainaldo was producing Islamic-derived mosaic panels at this time, of which sections survive in the Opera del Duomo, together with capitals, including an Islamic one. These years were not only chronicled in contemporary documents and inscriptions²⁷⁸ but also kept alive by her historians after the humiliation of the Florentine takeover and her own decline in cultural creativity and prestige.

The men who built the Pisa complex would have been delighted with Vasari’s write-up praising their use of marble from many distant places, and their skill in juggling the materials to fit smoothly.²⁷⁹ He emphasises these features as their monument to Mediterranean trade

²⁷⁴ Renzi Rizzo, C., & Campopiano, M., eds., *Pisa e il Mediterraneo: Antologia di fonti scritte dal secolo VII alla metà del XII*, online at <http://www.humnet.unipi.it/medievistica/didattica/disp2002.pdf>. Schaube, *Handelsgeschichte*, paras 32–9.

²⁷⁵ Tangheroni, Marco, “L’espansione di Pisa: orizzonti di gloria,” *Medioevo* 39 March 2000, 28–34: Pisa, with Genoa as the protagonist of the maritime reconquest of the Western Mediterranean; see 31 for quote.

²⁷⁶ Bramon, Dolores, *El mundo en el siglo XII: estudio de la versión castellana y del original árabe de una geografía universal*, “*El tratado de al-Zuhri*,” (Sabadell 1991), 136.

²⁷⁷ Renzi Rizzo, Catia, “Pisarum et Pisanorum descriptiones in una fonte araba, della meta del XII secolo,” *Boll. Stor. Pisano* LXXII 2003 1–29; by al-Zuhri, from Andalucía—a compiler, not a direct observer.

²⁷⁸ G. Scalia, “‘Romanitas’ pisana tra XI e XII secolo. Le iscrizioni romane del duomo e la statua del console Rodolfo,” *Studi Medievali* XIII.2 1972, 791–843. Tangheroni, “Pisa e il Mediterraneo,” 120 Table I for written references to Pisa and her doings AD 603–926.

²⁷⁹ Vasari, *Le Vite*, I, 184–5: “quasi tutto di marmo dentro e fuori... fu edificato e ornato dai Pisani d’infinite spoglie condotte per mare, essendo eglino nel colmo della grandezza loro, di diversi lontanissimi luoghi, come ben mostrano le colonne, base, capitelli, cornicioni e altre pietre d’ogni sorte che vi si veggiono. E perche tutte queste cose erano alcune piccole, alcune grandi, e altre mezzane, fu grande il giudizio e la virtù di Buschetto nell’accommodarle e nel fare lo spartimento di tutta quella fabbrica, dentro e fuori molto bene accommodata; et oltre all’altre cose, nella facciata dinanzi, con gran numero di colonne accomodò il diminuire del frontespizio molto ingegnosamente, quello di varii e diversi intagli d’altre colonne e di statue antiche adornando.”

and their occasional supremacy in it.²⁸⁰ He had read the inscriptions, and accepted that the structure was indeed “quasi tutto di marmo”—“niveo de marmore” as the inscription has it—when it is in fact largely of local material, namely white S. Giuliano “limestone” and black Asciano limestone enhanced with old blocks.²⁸¹ Terminology is a problem here, for the same material is also termed “Monte Pisano marble.”²⁸² The balance of the various stones used, and the old pieces, have been well studied,²⁸³ although it is uncertain how many of the nave monoliths of the Duomo were replaced after the 1595 fire.

Posting triumphal inscriptions on monuments is an antique trait also much used by the Moslems. But they are not common on contemporary Christian monuments, although the inflation of building claims is frequent. Pisa used inscriptions not only to prolong the collective memory of her expeditions against Reggio and Messina (1005) and then Sardinia (1015–16), but also to make parallels between her expeditions against Bône (1034) and Mahdiya and Zawila (1087), with those of Rome against Carthage.²⁸⁴ Designed for a building begun in 1063, these indicate a concerted campaign. During the Balearic War (1113–15) the *Gesta Triumphalia* notes that Pisa ruined Majorca, but does not specify marble as part of the booty.²⁸⁵ The most visible piece, namely the Islamic bronze griffon erected at the east end of the Duomo,²⁸⁶ was probably acquired during these wars.

²⁸⁰ Tangheroni, Marco, ed., *Pisa e il Mediterraneo: uomini, merci, idee dagli Etruschi ai Medici*, (Milan 2003), 203ff. for her connections with Corsica, 245ff. for Majorca, 223ff. for the Holy Land.

²⁸¹ Tedeschi Grisanti, Giovanna, “I marmi romani di Pisa: problemi di provenienza e di commercio,” in Dolci, Enrico, ed., *Il marmo nella civiltà romana*, (Lucca 1990), 115–35: see 116.

²⁸² Franzini, Marco, & Lezzerini, Marco, “The stones of medieval buildings in Pisa and Lucca provinces (western Tuscany, Italy). 1—The Monte Pisano marble,” *Eur. J. Mineralogy* 15 2003, 217–224.

²⁸³ Fabiani, P., Mennucci, A. & Nenci, C., “Indagini sui paramenti murari esterni del Duomo di Pisa: rapporto preliminare,” *I Congresso di archeologia medievale*, at <http://archeologiamedievale.unisi.it/NewPages/EDITORIA/SAMI11.html>, with useful “maps” of stone usage.

²⁸⁴ Scalia, “Le epigrafi,” 423–5; *ibid.*, “Romanitas pisana,” *passim*.

²⁸⁵ Available online at <http://www.humnet.unipi.it/medievistica/didattica/disp2002.pdf>, 70: “Ecclesie Pisane maximis et pretiosis muneribus in paliis et vestibus et vasis argenteis et eburneis quampluribus atque crystallinis, adiunctis super hoc regalium ornamentorum insignibus.”

²⁸⁶ Baracchini, Clara, *I marmi di Lasinio. La collezione di sculpture medievali e moderne nel Camposanto di Pisa*, (Florence 1993); see 143–4 for the griffon, currently thought to be Arabo-Hispanic.

Some materials came from Rome (such as the transenna panels carved in the verso of the Neptune Frieze from behind the Pantheon, now Opera del Duomo). But it is likely that the majority came from North Africa, Sicily and Alexandria, where Pisa had her own consul from 1153 but was surely trading long before that.²⁸⁷ Al-Zuhri, writing in the mid-12th century, notes that they were merchants on land and sea, trading to the confines of Syria, to Alexandria and Cairo, and to the Maghreb and Al-Andaluz.²⁸⁸ Their problems with Salerno and Amalfi were assuaged by alliances with Roger II, and by sending large numbers of trading vessels to Alexandria.²⁸⁹ Pisa's commercial reach is the other arm of her military control, and it was her fleet and her wealth which allowed her from the 12th century to quarry and import very large granite columns from Elba.²⁹⁰ It is surely trade that triggers her interest in international rather than just local materials, including large quantities of ceramic bacini which decorate her churches and which, like the coloured intarsia designs on the exterior of the Duomo, explicitly proclaim her links with the Islamic world.²⁹¹ Indeed, this can be quantified, for only 3% of 13th-century ceramics in Pisa are from Byzantium,²⁹² the rest coming from Western Islam. The earliest bacini are from the last quarter of the 10th century, suggesting that Pisan ships were already visiting various Islamic ports (or vice versa).²⁹³ Bacini are not necessarily a poor substitute for marble, given that Byzantium herself used ceramics in high-prestige locations, both for holy images and ornamental tiles,²⁹⁴ for example on the exterior of S. Catherine, Thessaloniki (where they appear with old marble). To the extent that

²⁸⁷ Froux Otten, Catherine, "Les Pisans en Egypte et à Acre dans la seconde moitié du XIII^e siècle: documents nouveaux," *Bollettino Storico Pisano* 11 1983, 163–90; see 167.

²⁸⁸ Guichard, Pierre, *L'Espagne et la Sicile musulmanes aux XI^e et XII^e siècles*, (Lyon 1990), 66; includes a useful selection of commented documents. For an overview see *Rosselló Bordoy, Guillermo, et al., *Al-Andalus y el Mediterraneo*, (Barcelona 1995), with sections on trade, cultural travel, and exchange of knowledge.

²⁸⁹ Heyd, *Commerce*, I 124, 189f., 392f.; 399: in the winter of 1187–8 there were 37 vessels from Genoa, Pisa, Venice etc. in port there.

²⁹⁰ Orvictani Busch, Silvia, *Medieval mediterranean ports: the Catalan and Tuscan coasts, 1100 to 1235*, (Leiden 2001), 194.

²⁹¹ dvd_bacini_roundels.doc.

²⁹² S. Michele degli Scalzi has Byzantine (or Byzantine-inspired) reliefs on its façade, Islamic bacini in its campanile, and old patched shafts inside.

²⁹³ Tangheroni, "Pisa e il Mediterraneo," table 3, and 138–9.

²⁹⁴ Gerstel, Sharon E.J., "Ceramic icons from medieval Constantinople," in Gerstel, Sharon E.J., & Lauffenburger, Julie A., *A lost art rediscovered: the architectural ceramics of Byzantium*, (University Park 2001), 43–65. Anderson, Jeffrey C., "Introduction to the ornamental tiles," in *ibid.*, 89–117.

mediaeval Florence interested herself in marble (as in the exteriors of Baptistery and Duomo), it was surely Pisa's example that was critical, as it was for that greatest of over-the-top creations, S. Marco in Venice. Indeed, it has been suggested that Pisa may have procured blocks for S. Miniato, since two capitals are identical to two in S. Frediano, Lucca.²⁹⁵ Perhaps it was also Pisa who supplied the antique sarcophagi re-used in Florence and Lucca.²⁹⁶

Pisa was of course an antique foundation, probably once with a good complement of pre-Millennium churches built with antiquities.²⁹⁷ Some of the Duomo's material certainly came from the city itself, but some for other churches as well as the Duomo certainly came from Rome,²⁹⁸ such as columns for S. Michele in Borgo²⁹⁹ and a large panel with Islamic-style decoration now in the Opera del Duomo.³⁰⁰ Indeed, the Portico of Octavia in Rome seems to have supplied material for both the Duomo in Pisa and for S. Paolo fuori le Mura in Rome.³⁰¹ And perhaps the two large capitals decorating a (13thC?) palazzo in Via Ulisse Dini also came from Rome. What is more, a sarcophagus figure decorating a house in Via S. Martino suggests that others may also have sported antiquities.³⁰² Rebuilding more than once with the physical remains of the past seems to have been common, perhaps passing the same pieces to the subsequent structure. Hence it seems likely

²⁹⁵ *Basso, *I capitelli romani di San Miniato al Monte*, 170–2.

²⁹⁶ Chiarlo, Carlo Roberto, “‘Donato l’a lodate per chose buone’: il reimpiego dei sarcofagi da Lucca a Firenze,” in Andreac, *Reimpiego dei sarcofagi*, 121–32.

²⁹⁷ RM: *Ronzani, Mauro, “Dall’edificatio ecclesiae all’Opera di S. Maria’: nascita e primi sviluppi di un’istituzione nella Pisa dei secoli XI e XII,” in Haines, M., & Riccetti, L., eds., *Opera: carattere e ruolo delle fabbriche cittadine fino all’inizio dell’età moderna*, (Florence 1996), 1–70.

²⁹⁸ Tedeschi Grisanti, *I marmi romani di Pisa*, 117ff; *ibid.*, “Dalle Terme di Caracalla. Capitelli reimpiegati nel Duomo di Pisa,” *Atti della Accademia Nazionale dei Lincei, Classe di scienze morali, storiche e filologiche, Rendiconti*, serie 9 1 1991, 161–185, for three Corinthian capitals with eagles; *ibid.*, “Disiecta membra del Portico d’Ottavia in S. Paolo fuori le Mura e nel Duomo di Pisa,” *Bollettino—Monumenti, musei e gallerie pontificie* 19 1999, 87–98.

²⁹⁹ Muratori Ant. It. M.E. IV, 788; Abbot Bono c.1048: “et perrexī ad Romam per columnas ipsius Ecclesiae et comparavi et eas venire in navim per mare de nostro pretio.”

³⁰⁰ Baracchini, *I marmi di Lasinio*, cats 2 & 5.

³⁰¹ Tedeschi Grisanti, “Disiecta membra:” two 1.02m-high corinthian capitals placed on Elba granite shafts at Pisa; similar ones remain (much battered) at Portico of Octavia—5 capitals with identical decoration but different dimensions; three more in San Paolo f.m., built under Honorius (395–423). But the colonnade of Octavia was built only in 390—so surely the material was first stockpiled.

³⁰² Scalia, Giuseppe, *Il console Rodolfo e Ferdinando I de’ Medici. Per la storia di due statue pisane*, (Rome 1987), 87 & fig. 30.

that churches such as S. Piero a Grado and S. Giovanni in Chinzica existed in earlier than Romanesque builds, and used the same columns and capitals.³⁰³ S. Piero is a likely unloading-spot for cargoes from overseas,³⁰⁴ and definitely for material from Rome, for one capital matches a fellow at S. Nicola in Carcere.³⁰⁵ At S. Piero a classical entablature (the S. transept door of the Duomo also has one) is placed next to an 8th-century decorated block: so is it the “beautiful past” which is displayed, without any specifics being possible? The question might be important, because 8th-century decorative blocks are also displayed on Pisa Duomo, which might undermine any theory of focussed reverence for the specifically Roman antique.³⁰⁶ But the details are obscure,³⁰⁷ and while it is not known just how many elements of the post-Millennium rebuilds are local, the suspicion is that the majority were imported by sea. This can be demonstrated for elements on the Campo de’Miracoli, such as the sarcophagi brought back by the fleet,³⁰⁸ and reliefs recut as transennae.³⁰⁹ The sarcophagi would have made convenient ballast, and were brought as trophies to feed a new vogue for burial, which was not restricted to the Duomo: see the vessels in the crypt of S. Michele in Borgo. Looking elsewhere in Tuscany (old shafts at Loro Ciuffena, Tuscania or Pratovecchio, and Lucca) makes it clear that Pisa was not the only centre interested in re-using antiquities—only the biggest.

Some old marble came from the region, including the marble quarries around Carrara, and the erstwhile Roman city of Luni itself, which might have supplied several of the large churches in the area, such as those as Cascia and Cascina. Ancient Luni was rich, and her

³⁰³ Sanpaolesi, P., *Il Duomo di Pisa e l’architettura romanica toscana delle origini*, (Pisa 1975), 59ff. In the case of S Piero a Grado, the columns were 8 bardiglio, 7 cipollino, plus syenite and Elban granite.

³⁰⁴ Grisanti, *I marmi romani di Pisa*, 116: for excavations here in 1919.

³⁰⁵ Herrmann, J.J., *The Ionic capital in late antique Rome*, (Rome 1988), 11 & figs 205–7.

³⁰⁶ For suggested connections with the Haram in Jerusalem, see dvd_jerusalem_palace_and_mosque.doc.

³⁰⁷ Garzella, Gabriella, *Pisa com’era: topografia e insediamento dall’impianto tardoantico all’città murata del secolo XII*, (Naples 1990); Redi, Fabio, *Pisa com’era: archeologia, urbanistica e strutture materiali (secoli V–XIV)*, (Naples 1991), with a review of church building pp. 347–393.

³⁰⁸ Vasari, *Le Vite*, in “Life of Nicola & Giovanni Pisano,” 239: of a sarcophagus, “essendo fra molte spoglie di marmi stati condotti dall’armata de’Pisani alcuni pili antichi, che sono oggi nel campo santo di quella città.”

³⁰⁹ Tedeschi Grisanti, “Disiecta membra del Portico di Ottavia,” *passim*; Baracchini, *I marmi di Lasinio*, 146–8, for the dolphin frieze in proconnesian marble with polichrome marble intarsia on the verso.

ornament was not confined to the local marble. A cipollino column has been found here, and a 1st century BC house had a floor largely of local marble, but also including polychrome marbles from the eastern Mediterranean, including Portasanta, and breccia from Teos.³¹⁰ The city survived as an important étape on the Via Francigena, but the port is never mentioned until the 11th century (and it was sacked by the Moslems in 1015–16), so the city was perhaps seen before that date as a conjunction of land-routes.³¹¹ Some looting of the antique city apparently continued, for a later Abbot of S. Michele in Pisa (the church which had obtained columns from Rome in 1050) visited Luni in 1115 for the same purpose.³¹² So was Luni still rich in marble, as one might expect from the Carrara-Luni elision? The forum had long since been stripped, but we have no means of knowing just how much remained when the Moslems sacked the city, nor yet what else there might have been to sack. Famously, Rutilius Claudius Namatiasius had approached it from the sea in 416, describing in voluptuous terms its white walls and coloured marble.³¹³ But Massimo Bertozzi, convincing in the role of archaeological spoilsport, points out that no traces of marble walls were found by the diggers. This, he suggests, is an index of the amount removed³¹⁴—always assuming, of course, that the antique reference was not purely conventional, a topos.

Did any of the marble for Pisa come from the Carrara quarries? The prevailing opinion is still that quarrying re-started only in the 13th century, hence that all the materials in the Pisan walls are in re-use.³¹⁵

³¹⁰ Mannoni, *Marble: the history of a culture*, 36 fig. 32, & 168 fig. 188.

³¹¹ Orvietani Busch, Silvia, “An interdisciplinary and comparative approach to northern Tuscan ports in the early and high Middle Ages,” in Simon, Larry J., ed., *Iberia and the Mediterranean world of the Middle Ages: studies in honor of Robert I. Burns*, (Leiden 1995) 161–84; see 166.

³¹² AIMA 4.787ff.: “I sent to Rome for the columns of the church; and I brought them here by ship at our cost;” and *ibid.*, 790: the campanile erected only fifteen years before was pulled down to put something better in its place, “quomodo videtis valde pulcrior;” see also Bertozzi, Massimo, “Michelangelo e gli altri. Marmorarii scultori e mercanti dalle origini alla fine del Settecento,” in Jervis, Paola, ed., *Paesaggi del marmo: uomini e cave nelle Apuane*, (Venice 1994), 25–45; see 30.

³¹³ *De redito suo*, 2, v.63–8, “Scivolando veloci veniamo alle candide mura / cui la sorella che del sole splende assegna il nome. / Supera con i suoi massi i gigli ridenti / e, screziata, irraggia levigato nitore la pietra. Ricca di marmi è la terra, e con la luce del colore / sfida sontuosa le inviolate nevi.”

³¹⁴ Bertozzi, “Michelangelo e gli altri,” 30.

³¹⁵ Cf. the symposium *Ante et post Lunam*, Carrara 2005, on the web at <http://www.parkapuane.it>: Tedeschi Grisanti, Giovanna, in her “Marmi lunensi di età romana reimpiagati a Pisa durante l’Alto Medioevo:” Luni marble at Pisa is largely Roman

This stance is flagged by the very title of Klapisch-Zuber's book, if now somewhat amended.³¹⁶ Marco Franzini wants to push re-exploitation back to the early 11th century, because his careful and detailed examination of mediaeval structures along the coast of Tuscany allows him to formulate reasonable hypotheses about the re-opening of the marble quarries soon after the Millennium.³¹⁷ These are strengthened by his pointing out that the stripey 'ablaq' effect so often seen in Lucca and Pisa (even on the Duomo) suggests difficulties in assuring a regular flow of the same materials, hence necessity is here the mother of decoration. Certainly, deeds from late-12th-century Genoa suggest columns were indeed being quarried at Carrara by then. Mannini hypothesizes that there were used in the city in the 12th–14th centuries some 600 blocks for columns and capitals, 65,000 linear metres for window colonnettes (with their bases and capitals), 20,000m for cornices and the like, and 100,000m for façade decoration.³¹⁸ These are large quantities.

But the majority of Pisa's old materials came from further afield, as chronicles relate and inscriptions proudly proclaim, so very probably as a matter of policy. Palermo was looted in 1060, and its treasure used to build the Duomo. In 1088 a raid on the Saracens of Barbary, including Mahdiya, made the local king sue for truce and offer tribute, from which the church of S. Sisto was built, as we have seen. This is a signal conjunction of war and architecture, the more so since the structure boasts the best old columns in the city. In 1090 it was the turn of Haifa and Tyre. On the way back the Pisans raided many lands, then back in Pisa furnished the building Duomo "di tanti paramenti che fusse abastanza. Chosi fecie anchora al duomo di Palermo."³¹⁹ The phrasing in these

imperial stock, "inserito nelle murature medievali della città come prezioso frammento di un passato illustre a cui si fa riferimento esplicito nella letteratura encomiastica del XII secolo."

³¹⁶ Klapisch-Zuber, C., *Les maîtres du marbre. Carrare 1300–1600*, (Paris 1969); NB her dates are probably governed by those of the available documents; *ibid.*, "Cercavano il pelo nel marmo," *Medioevo*, 29 June 1999, 28–33: on mediaeval extraction techniques; see 28: extraction began again in the 12thC.

³¹⁷ Franzini, Marco, "La ripresa dell'estrazione del marmo nella Toscana occidentale in epoca medievale," *Ante et post Lunam*, Carrara 2005, at <http://www.parkapuane.it>. Marbled churches near Lucca he instances include San Michele in Escheto, 1122 (the R flank of which has has monoliths 320 × 85 and 205 × 95); S.Leonardo in Treponzio, end 12thC; Santi Maria e Iacopo, Lammari, 12thC; plus the lower façade of Carrara Duomo, which he dates to c.1140.

³¹⁸ Mannoni, Tiziano, "Genova e il marmo lunense nel medioevo," *Acta Apuana* IV–V 2005–2006, 85–88.

³¹⁹ Banti, Ottavio, ed., *Cronaca di Pisa di Ranieri Sardo*, (Rome 1963), 16–25.

accounts is vague, and it is not explicitly stated that any marble came from Bône (Hippo), let alone Mahdiya, although S. Sisto is specifically mentioned. As we have already seen, Palermo today is conspicuously short of old columns, but we know that the Great Mosque and the loggia connecting it to the palace (now the site of the Duomo) were rich in marble: so should we read “del tesoro che presono” as including marble? Certainly, in 1116 the Pisans were so flush with pieces that they gave two porphyry columns to the Florentines for protecting their city while the Pisans were campaigning abroad, and these were erected as trophies flanking the doors of the Baptistry. Given their value, this must have been a wrench, the more so because it is related in a much later text that they had magical properties.³²⁰ As Epstein remarks,³²¹ not only did the Muslims sack Pisa in 1004 and Luni in 1015, but it was Pope Victor III (the erstwhile Desiderius of Montecassino) who helped to encourage the Pisa/Genoa attack on Mahdiya in 1087.³²² Since Mahdiya was a conceivable focus of marble (both in its mosque and in its position as the port for Kairouan), one might suppose that such an experienced marble aficionado as Desiderius/Victor knew about the marble to be had in the area.

As we might expect, Pisa's interest in attractive old marble (and in imitating it) is seen elsewhere in the region, and further north as well.³²³ Pistoia displays more old shafts (some of them coloured) on the campanile of the Duomo than on its façade. Lucca has a similar interest in marble, and also in antiquities,³²⁴ and some 80 churches were built in town and suburbs, 43 churches being mentioned in 8thC.³²⁵ Hence she is as rich as Pisa in marbled churches; the façades of several are highly decorated (Duomo di S. Martino, S. Michele), and S. Frediano,

³²⁰ Banti, *Cronaca di Pisa*, 24–5. Cf. the death-dealing insect which crawled from a broken block of green marble in 1474, and killed the barber who had used it as a strop for 30 years: *Ibn Iyas, Mamlouks*, 102.

³²¹ Epstein, Steven, *Genoa & the Genoese, 958–1528*, (Chapel Hill 1996), 22–3.

³²² Cowdrey, *The age of Abbot Desiderius*, 200 for discussion; 212: his reward came when part of the Mahdiya spoils were given to S Peter's in Rome—i.e. while Victor (Desiderius) was Pope.

³²³ Malacart, Anna Segagni, “La ripresa dell'antico nelle testimonianze romaniche lombarde: alcuni esempio a Milano e Pavia,” in Quintavalle, Arturo Carlo, ed., *Medioevo: il tempo degli antichi*, (Milan 2006), 382–97; *Garzelli, Annarosa, “Occorrenze archeologiche nei primitivi toscani,” in *ibid.*, 477–92; cf. 485–90 for a catalogue of mediaeval-antique confronti.

³²⁴ Quiros Castillo, Juan Antonio, “La silleria y las técnicas,” *Archeologia Medievale* XXV 1998, 235–46; see 78–9 for types of re-use in the buildings of Lucca.

³²⁵ *Christie, *From Constantine to Charlemagne*, 144 & graphs at fig. 27.

SM foris Portam and S. Giovanni boast columns and capitals the equal in quality to those in Pisa. S. Bartolommeo in Pantano (Pistoia) has a lintel that looks like a sarcophagus but (like the architrave above it) is contemporary. Much the same happens at S. Pier Maggiore (also Pistoia), with the addition of green marble (surely old?) colonnettes between the figures. S. Leonardo al Frigido (Lunigiana) has sarcophagus-derived sculptural work (c.1175—plus a jamb which is indeed a sawn-up sarcophagus) comparable with the architrave of the main doorway of S. Cassiano a Settimo, Pisa (1180), or the lintel of S. Michelotto. The architrave at SM foris Portam is signed and dated by Master Biduino, whose attachment to sarcophagi was proclaimed by his signing one in the Campo Santo: this is strigillate and with figures, in imitation of an antique type.³²⁶ The fact of interest in sarcophagi is clinched by the font in the Pieve at Calci, clearly inspired by such models.³²⁷ The façade of S. Alessandro has a revêtement of large blocks in S. Giuliano marble, beautifully cut and laid, which imitates pseudoisodomic opus quadratum; Franzini believes this must all be old. Inside, it has coloured marble columns, with refurbished capitals.³²⁸ Vasari picks out S. Martino with “un portico di marmo con molti ornamenti e intagli di cose fatte in memoria di Papa Alessandro secondo” (such as the inscription: “Huius que celsi radiant fastigia templi”).³²⁹ So adept are several of the capitals in S. Frediano that the catalogues are unsure whether certain are indeed Roman, or imitation, although many are of course touched up.³³⁰ The eponymous church at Pisa has granite shafts with some very fine capitals, and an antique entablature block as lintel to the entrance. The spurts of 8th-9th-century building in both Pisa and Lucca are predicated, for Quiros Castillo, on local stone quarries, and he believes that Pisa was way ahead of Lucca in construction techniques because of her trade connections with the Caliphate of Córdoba.³³¹

³²⁶ Gomez-Moreno, Carmen, “The doorway of San Leonardo al Frigido and the problem of Master Biduino,” *Met Mus of Art Bull* NS 23.10 1965, 349–61; quote from 360.

³²⁷ Scalia, Giuseppe, *Il console Rodolfo e Ferdinando I de’ Medici. Per la storia di due statue pisane*, (Rome 1987), 92–3.

³²⁸ Franzini, “La ripresa dell’estrazione del marmo,” Carrai, Giampaolo, *Tradizione tarsoantica e derivate medioevali nella chiesa di sant’Alessandro a Lucca*, (Lucca 2002), summary on the web at <http://www.spolia.it>.

³²⁹ Vasari, *Le Vite*, I, 184–5.

³³⁰ Mencacci, P., & Zucchini, M., *Lucca romana*, (Lucca 1982), Tav CIIIf. & 442–3.

³³¹ Quiros Castillo, Juan Antonio, *Modi di costruire a Lucca nell’alto medioevo: una lettura attraverso l’archeologia dell’architettura*, (Siena 2002); see 111.

Venice

The first point to make in any consideration of the estimated forty-one varieties of old marble at S. Marco³³² in Venice are that there is no firm evidence about how extensively earlier versions of the basilica were marbled, or about when the large quantities now to be seen on the west and Piazzetta façades were installed, although it is clear that the city displayed much marble before and after 1204.³³³ Again, at least two 11th-century churches in Venice have old columns.³³⁴ To assess the extent of the supposed 13th-century rebuilding of S. Marco³³⁵ we would need details of the 11th-century rebuilding, and these do not exist. The date of the façade rebuild is uncertain, as is the appearance of the earlier church,³³⁶ and it would be interesting to know more about the use of antiquities on earlier palaces,³³⁷ if there is some similar stylistic horizon between palaces and S. Marco. The church we see today displays marble and porphyry in profusion on the north, west and south façades, and in the narthex—but there are no contemporary sources detailing when these tons of marble and porphyry triumphalism arrived,³³⁸ let alone where they came from. Venetian accounts are not necessarily reliable. For example, Morosini writes that “the greater part of the church of Misier Saint Mark was built with marble masonry and columns and

³³² Favaretto, Irene, et al., eds., *Marmi della Basilica di San Marco: capitelli, plutei, rivestimenti, arredi*, (Milan 2000); 184 for a chart.

³³³ Dorigo, *Venezia romanica*, 307–9 for porticoes in Venice using ancient columns and sometimes capitals; 324ff. for list of domus magnae et maiores, which very occasionally notice use of marble, e.g. Dolfín family at SS Apostoli, 1298, “et cum toto predicto marmore et cum omnibus predictis columnis et pilla de marmore.”

³³⁴ Dorigo, *Venezia romanica*, 88–9: San Giacomo di Rialto; and 90–1: San Giovanni Decollato.

³³⁵ Demus, Otto, *The church of San Marco in Venice: history, architecture, sculpture*, (Dumbarton Oaks 1960); see 63ff. for description of the architectural development.

³³⁶ Dorigo, Wladimiro, *Venezia origini: fondamenti, ipotesi, metodi*, (Milan 1983), I, 277–9 for table of paleochristian churches in the Veneto; II.371ff. for the earlier appearance of San Marco.

³³⁷ Schulz, Juergen, *The new palaces of medieval Venice*, (University Park 2004), figs 74–82 for some 13thC capitals in Venice, and their possible inspirations in Torcello, Istanbul and San Vitale, Ravenna.

³³⁸ Ramusio, Paolo, *Della guerra di Costantinopoli...l'anno 1204*, (Venice 1604), 93–4, 97, writes admiringly about the marble and porphyry in Haghia Sophia, and details the booty (slaves, pearls, silk, gold and silver and so on), but does not mention marble. And cf. Klein, Holger A., “Eastern objects and western desires: relics and reliquaries between Byzantine and the West,” in *DOP* 58 2004, 283–314; 301: although we have Villehardouin etc. on assembling and dividing the spoils, little is known “about the realities of looting proper.”

precious stones brought from Constantinople to Venice in galleys and ships,”³³⁹ but this could simply be an example of retro-fitting to explain the appearance of the basilica in his own day.³⁴⁰

The second point is that, in contradistinction to all known sites on the peninsula, Venice alone had minimal interest in locally available material, or perhaps in local antiquities, partly because of her far-flung trade.³⁴¹ There were plenty of early mediaeval sarcophagi within Venetian territory,³⁴² but Western material would not do for Doges. Thus the Jacopo Tiepolo tomb (d.1249) outside SS. Giovanni e Paolo, a re-worked late antique vessel probably from Ravenna with re-workings intended to preserve the antique (read: legitimate and traditional) air, underlines imperial pretensions and links with Byzantium. The tomb of Marino Morosini (d.1253) in the narthex of S. Marco does likewise, and is constructed of prestigious imported components.³⁴³ Were any vessels imported from Constantinople after 1204? Apparently not: the monsters now in the courtyards of the Archaeological Museum and Haghia Irene, though of porphyry, were perhaps too heavy to be moved. But there were other, smaller vessels, now inside the same museum, in exotic marbles. Should we conclude that sarcophagi were of small interest to the Venetians?

Indeed, there is a noticeable absence of the usual kinds of identifiable Western antiquities, although plenty of these (together with Byzantine antiquities) were available at for example Torcello and Murano,³⁴⁴ not to mention in Roman structures such as theatres around the Veneto.³⁴⁵

³³⁹ Ghezzi, Michele Pietro, Melville-Jones, John R., & Rizzi, Andrea, eds., *The Morosini Codex*, 2 vols, (Padua 1999 & 2000), I, 13: for 1205.

³⁴⁰ Cf. generally Perry, M., “St Mark’s Trophies: legend, superstition and archaeology in Renaissance Venice,” *JWCI* 40 1977 27–49.

³⁴¹ Schaube, *Handelsgeschichte*, paras 1–17.

³⁴² Agazzi, Michele, “Sarcophagi altomedievali nel territorio del Dogado veneziano,” in Quintavalle, Arturo C., ed., *Medioevo: immagini e ideologie*, (Milan 2005), 565–75.

³⁴³ Both discussed in Trovabene, Giordano, “Tombe duecentesche a Venezia,” in *ibid.*, 576–87.

³⁴⁴ Perocco, Guido, & Salvadori, Antonio, *Civiltà di Venezia*, (Venice 1977–1979), I, 19ff. for Roman tombstones at Torcello and, at San Donato di Murano, Roman sarcophagi, and the decorated Roman pilasters on the façade of the church; Torcello also has Eastern material: cf. *Guiglia Guidobaldi A., “Reimpiego di marmi bizantini a Torcello,” *Arte profana e arte sacra* (Rome 1993), 603–632. Del Bufalo, *Marbres de couleur*, 110 for the floor of SM Assunta Torcello, where there are so many coloured marbles displayed that the author thinks that they might have been samples of some kind.

³⁴⁵ *Basso, Patrizia, *Architettura e memoria dell’antico. Teatri anfitrionici e circhi della Venetia Romana*, (Rome 1999): 111–206 for “Abbandono, riuso, persistenza;” and then 207ff. for structures A–Z from Adria to Vicenza.

Instead, she sought her supplies from the Eastern Mediterranean, where she had extensive trade links, carried in her capacious commercial fleet and protected by her warships. Eastern churches certainly inspired several aspects of S. Marco. As well as the Holy Apostles, Hagia Sophia was an inspiration, and every one of the large number of Venetians who knew the church was probably aware of the marble cladding. Drawings might have been made, earlier versions of the on-the-spot work of Ciriaco d'Ancona, copied by Giuliano da Sangallo and inscribed "et cum porfireis serpentinis ac marmoreis columnis diversos nobilium et conspicuum lapidum."³⁴⁶ Given the nearly consistent width of most of the panels in S. Marco (c.85 × 216cm), it seems unlikely that they were all sawn from columns.³⁴⁷ Venice's standard building materials were brick and stone, but marble had been extensively used at nearby Grado and Aquileia. Such sites might have been the source of marble for dogal tombs.³⁴⁸ It was here that Patriarch Helias had built several basilicas: God revealed one to him at Caorle, and this was probably of old materials. These also appeared as a result of storms, such as the relics of 42 martyrs found when Tergestina (i.e. Trieste) fell down, "inter muros ecclesiae et muros civitatis."³⁴⁹ Similar miracles attended the marbling of mediaeval Aquileia.³⁵⁰ In 1031 the new basilica at Aquileia (originally 313, rebuilt mid-9thC) was consecrated. Like other churches in Italy,³⁵¹ it displays 8th-century fragments on the exterior, and 8th-century transennae inside; but the nave arcades are supported

³⁴⁶ Nesselrath, Arnold, "I libri di disegni di antichità: tentativo di una tipologia," in Settis, Salvatore, ed., *Memoria dell'antico nell'arte italiana*, (Turin 1986), II, *Dalla tradizione all'archeologia*, 89–147, fig. 51, from BAV Barb Lat 4424 fol 28r. Smith, Christine. "Cyriacus of Ancona's seven drawings of Hagia Sophia," *Art Bulletin* 69.1 1987, 16–32.

³⁴⁷ Vito, Ettore, "Un utopia di pietra," in Favaretto, *Marmi*, 17–27: cf. 24.

³⁴⁸ Pincus, Debra, *The tombs of the Doges of Venice*, (Cambridge 2000), chap 2. Gnoli, *Marmora*, 53, notes Aquileia, Altino, Torcello and Ravenna, as well as the Levant, as sources for Venetian material long before the Fourth Crusade.

³⁴⁹ *Chronicum Gradense*, in Monticoli, Giovanni, ed., *Cronache Veneziane antichissime*, I, (Rome 1890), 47–8, 37, 24–8.

³⁵⁰ Cessi, R., ed., *Chronicon Altinate*, Origo civitatum Italie seu Venetiarum, Rome 1933, 70–1: "Supra corpora sanctorum multitudinem marmoreis lastis invenerunt, subtus eas traxerunt, in Grandensem civitatem illas adduxerunt, cum maximo honore in Gradensibus ecclesiis retinuerunt"; 78: "templum paganorum, quod ad Behel ydolorum aliquantulum erat stantem non longo ab Aquilegia destructa civitate, mirabile fuit habente lapideis tabulis sive lapidibus preciosis, mira res edificiū que a serenissimo Atila destructum fuit. Helias patriarcha illum templum ydolorum ecclesia edificavit ad honore sancti Iuliani martiris."

³⁵¹ Such as S. Pietro ad Oratorium, Capestrano (Abruzzo), Petrella (Molise), or SS. Maria e Donato, Murano.

on conspicuously short columns—so what happened to the monoliths in the earlier Duomo? Supplies were short, as can be seen from the miscellaneous material in the portico.

From perhaps before 800 Venice lived by international commerce, carried in her fleet, and with bases scattered around the Mediterranean.³⁵² None of her marbling achievements, centred on the cult of S. Mark, would have been possible without such a range. An index of her feared commercial reach is that already in 840 or 841 her fleet had been defeated by the Saracens off Taranto. Certainly, some of the marble material in the crypt has been closely connected with Early Christian churches at Iasos (many elements of which survive), so it is possible that the Venetian scouring of the East for marble began early.³⁵³ Even today, many pieces of Byzantine origin remain in the environs of Venice, for example the splendid capitals at Grado (with plenty more at Ravenna). We may surmise a disinclination to spoliating working churches; but could exoticism for the Venetians derive from the distances over which such ‘trophy’ were fetched, rather than just what they looked like? Discriminating as they supposedly were in their choice of eastern stock, surely they realised that the material (transennae as well as shafts and capitals) at sites such as Torcello, Grado, and Parenzo (this last with especially fine shafts and Byzantine capitals) had made exactly the same journey as their own imports, but centuries before. Yes, at least by the 15th century, when we find Doge Cristoforo Moro writing to Ravenna for antique pieces so he can rebuild S. Severo (for which columns had already been carried to Venice from Ravenna);³⁵⁴ and early transennae are also to be found in private houses in Venice.³⁵⁵

So when did Venice start collecting old marble? This question is the most acute of all for this intensely competitive, commercially active city. It is possible that “These great merchant venturers were not cultural innovators,”³⁵⁶ or that they were following on the coat-tails of the west coast—for Lucca and Pisa, Genoa and Amalfi and even S. Denis had

³⁵² Calabi, Donatella, “Le basi ultramarine,” *Storia di Venezia XII: Il Mare*, (Rome 1991), 861–78 including essential bibliography; McCormick, *Origins*, passim.

³⁵³ Serin, Ufuk, *Early Christian and Byzantine churches at Iasos in Caria: an architectural survey*, (Vatican City 2004), 124–8; 136 for ambo stringboards with triangular termini, again to be found in San Marco, and also in S Polyeucte in Constantinople.

³⁵⁴ Ricci, Corrado, *Il Tempio Malatestiano*, (Milan 1924), 212–3.

³⁵⁵ Dorigo, *Venezia romanica*, 26.

³⁵⁶ Lauro Martines reviewing “Bellini and the East,” National Gallery, London, *Times Literary Supplement* 2 June 2006, 19.

been using such materials for generations. Unfortunately, any track record of earlier sorties would have appeared in buildings long-gone (so that a book treating marble and colour starts at 1250).³⁵⁷ Certainly, Venice was importing marble in large quantities from the East by the 11th century, and not just for S. Marco.³⁵⁸ Given her intense competitiveness (by which, after all, she also gained her living), it would be surprising indeed were she not in lock-step with Pisa and Genoa where marble lavishness was concerned. For Pensabene, for example, 1063ff. is the date for the reconstruction of S. Marco, based on the Holy Apostles and S. John at Ephesus.³⁵⁹ Hence it is surely illogical to believe that it was Constantinople in 1204 which initiated the Venetian interest in lavish display—in “gold, precious marbles, sculptures, mosaic tesserae... sheer ostentation”³⁶⁰—objects which the Crusaders saw in that city.³⁶¹

Her desire to augment the importance of her church by the prestige of the cult of S. Mark had political as well as architectural overtones,³⁶² just as the extravagant marbles had financial ones.³⁶³ Venetian tradition in the very late Cronaca Bemba (which goes to the year 1521) has the Doge Giustiniano Participazio triumphant against the Saracens in 817, “and returning with many spoils of victory, beautiful columns and other very fine stones of marble... and into the construction of [S. Marco] he put all the stones and all the marble columns that he had already brought from Sicily.”³⁶⁴ This would fit (retrofit?) the traditional date for the arrival of the body of S. Mark in 828, as would Sanudo’s account of the spoils given them by Michael II for helping him against Sicily in

³⁵⁷ Hills, Paul, *Venetian colour: marble, mosaic, painting and glass, 1250–1550*, (New Haven 1999).

³⁵⁸ Mangano, Maria, et al., “I materiali lapidei nei pavimenti in opus sectile di chiese veneziane del XII secolo,” *AISCOM V* Ravenna 1998, 49–66; some marbles used are very rare; others were in re-use, since Greek letters appear on some tesserae.

³⁵⁹ Pensabene, Patrizio, “Capitelli bizantini e bizantineggianti della cripta del duomo di Trani,” in Barsanti, Claudia, et al., eds., *Bisanzio e l’Occidente: arte, archeologia, storia: studi in onore di Fernanda de’ Maffei*, (Rome 1996), 375–403; see 402.

³⁶⁰ Dale, Thomas E.A., “Inventing a sacred past: pictorial narratives of St. Mark the Evangelist in Aquileia and Venice ca.1000–1300,” *DOP* 48 1994, 53–104; see 100.

³⁶¹ Macrides, Ruth, “Constantinople: the crusaders’ gaze,” in *Macrides, Ruth, ed., *Travel in the Byzantine World* (Aldershot, 2002), 193–212.

³⁶² Zettler, Alfons, “Die politischen Dimensionen des Markuskultus im hochmittelalterlichen Venedig,” in Petersohn, J., ed., *Politik und Heiligenverehrung im Hochmittelalter*, (Sigmaringen 1994), 541–571.

³⁶³ Strupp, J., “The color of money: use, cost and aesthetic appreciation of marble in Venice c.1500,” *Venezia Cinquecento V* 1993, 7–32.

³⁶⁴ Brown, Patricia Fortini, *Venice and antiquity: the Venetian sense of the past*, (New Haven 1997), 18.

829: “esso imperador mando a donar la cariega di marmoro su la qual san Piero sento in Anthiochia, la qual al presente e driedo l’altar di San Pietro di Castello con molte altre reliquie.”³⁶⁵ Obscurity is increased (and hence our ability to picture what the early shrine looked like) by the very tall story that the location of the saint’s relics were known only to a few, and that knowledge was lost with the 11thC rebuild. Then they were rediscovered when, in the type of action to be expected of saints, Mark himself caused marble revêtement to fall from one of the pillars bearing the dome, thus revealing them.³⁶⁶

As elsewhere in Europe and further east, marble and the cult of relics come together in Venice, perhaps as an assertion of cultural identity and confected or genuine “memory.”³⁶⁷ Trading relations with Byzantium and Alexandria³⁶⁸ fed her taste for varieties of exotic marble into the Renaissance.³⁶⁹ The archaeological study of Venice’s walls could help with dating the frequent antiquities,³⁷⁰ but when did imports start? Citarella provides the answer in a nutshell: the merchants who took the relics from Alexandria in 828 didn’t find themselves there by coincidence.³⁷¹ McCormick relates the story of the translation (outright robbery) of the remains of S. Mark from Alexandria. The Venetians were driven to Alexandria (God did it: thereby sidestepping the very rubbery embargo on trading with the Muslims), where they bought and sold goods, and visited the shrine of S. Mark. The relics were taken to frustrate the Arab governor’s ongoing campaign to collect materials for a palace—if so, then perhaps this was trophy-hunting with religious overtones.³⁷² Thus the *Translatio S. Marci*, which McCormick believes to

³⁶⁵ Monticolo, Giovanni, ed., *Sanudo, Marin, Le vite dei Dogi*, (Citta di Castello 1900), (RIS XXII.IV), 115.

³⁶⁶ Dale, Thomas E., “‘Stolen property;’ St Mark’s first Venetian tomb and the politics of communal memory,” in Valdez del Alamo, Elizabeth, & Pendergast, Carol S., eds., *Memory and the Medieval Tomb*, (Aldershot 2000), 205–225; see 206.

³⁶⁷ RM: *Canetti, Luigi, “Mnemostoria e archeologia rituale delle traslazioni di reliquie tra Antichità e Medioevo,” in Stantchev, K., ed., “*Inventio*” e/o “*translatio*”. *Il culto delle reliquie dei santi*, Atti del II Seminario “Agiografia e liturgia tra Roma e Costantinopoli,” Grottaferrata-Roma 29–31 marzo 2001; cf. 3 note 13: “bisognoso di darsi una rinnovata base identitaria attingendo al passato e allo spazio cristiani,” Niero, A., ed., *San Marco. Aspetti storici e agiografici*, (Venice 1996).

³⁶⁸ Borsari, Silvano, *Venezia e Bisanzio nel XII secolo: i rapporti economici*, (Venice 1988), 31ff., 96f.; and 65ff. for translatio of relics of S Stefano Protomartire from Constantinople to Venice in 1110.

³⁶⁹ Connell, *Sculptors and stonemasons*, 113ff.

³⁷⁰ D’Ulizia, Alessandra, “L’archeologia dell’architettura in Italia, sintesi e bilancio degli studi,” *Archeologia dell’Architettura* X 2005, 9–41, and 27–8 for activity in Venice.

³⁷¹ Citarella, *La crisi navale araba nel secolo VIII*, 202.

³⁷² *Descrittori Italiani dell’Egitto*, 431: “in diebus illis regulus quidam nefandae gentis

be accurate, with good historical value.³⁷³ But in fact the save-it-from-the-Muslims defence was what cynics would call the Lord Elgin gambit, since Amari has demonstrated that no such palaces were in construction at that date³⁷⁴ and, in any case, the relics there were already an object of Venetian veneration.³⁷⁵

Is the supposed 828 date of the translation correct? Getting an accurate date could entail the possibility that old marble was taken to Venice at the same time to construct and decorate the shrine in Venice: the first basilica had a marble floor, perhaps by analogy with the Holy Sepulchre,³⁷⁶ but nothing else is mentioned. Caroli is sceptical,³⁷⁷ believing that it might be just one of many Venetian retrofits. As a believable date, however, it is not too early: Charlemagne and Alcuin had promoted and prosecuted such operations decades earlier,³⁷⁸ and they had interested themselves in antiquities as well. Venetian merchants—not monks—had also translated the relics of SS. Genesius and Eugenius from the Holy Land c.795.³⁷⁹ Alexandria was certainly a rich source of marble and granite, just as it had been fabled for its ancient buildings,³⁸⁰ and was still providing plentiful materials for the Mamluks in the fourteenth and fifteenth centuries. So elements of S. Marco might

saracenorum, dum ad urbem... Babyloniam... palatium sibi construere vellet... iussit, ut ubicumque in terra Aegypti columnae marmoreae, sive tabulae, tam in ecclesiis, quam in vulgaribus essent repertae, ob pompam fabricae, quam parabat, ad eum ducerentur.

³⁷³ The story is also in Sanudo: Monticolo, Giovanni, ed., *Sanudo, Marin, Le vite dei Dogi*, (Citta di Castello 1900), (*RIS* XXII.IV), 113–14: the spoliator was the “re dei Mori dil Chayro.” This may be a confusion with the destruction of a new 13th-century church of S. Mark demolished because it dominated the port: cf. Blochet, E., “Extraits de l’histoire des Patriarchs d’Alexandrie,” *Revue de l’Orient Latin* XI 1905–8, 509.

³⁷⁴ Curatola, Giovanni, “Venetian merchants and travellers in Alexandria,” in Hirst, Anthony, & Silk, Michael, eds., *Alexandria, real and imagined*, (Aldershot 2004), 185–98; see 185–6.

³⁷⁵ Heyd, *Commerce*, I. 110.

³⁷⁶ Dorigo, Wladimiro, “La prima San Marco e il problema della ‘forma gerosolimitana’,” *Arte Documenta* 6 1987, 63–9.

³⁷⁷ Caroli, Martina, *Le traslazioni reliquiali dei secoli VIII–X in Occidente: funzione della regalità carolingia?* PhD, (Bologna 1998), 173–6 for discussion of the problem: “il culto marciano, nella pienezza delle sue valenze patronali e pubblicistiche, conobbe il suo essor nei decenni successivi al Mille, e specialmente dopo che nel 1053”—which she connects with the building of San Marco III after 1063.

³⁷⁸ Osborne, John, “Politics, diplomacy and the cult of relics in Venice and the northern Adriatic in the first half of the ninth century,” *Early Medieval Europe* 8 1999, 369–86; 375ff. for the acquisition of the relics of S Mark.

³⁷⁹ McCormick: *Register* 230.

³⁸⁰ Such as the Palace of Cleopatra, rich in gleaming marble veneers, onyx, etc: cf. Lucan *Pharsalia* X.111ff.

have been designed as a replacement for the martyrium at Alexandria, thereby conveniently outfacing the competition of Aquileia, with its supposed apostolic foundation.³⁸¹ If so, then perhaps the 9th-century S. Marco and its successor(s) were already extensively marbled.

No more do we know the motives for marbling than we do the dates, although surely Pisa and Genoa provide the likeliest context, as already suggested. Is the use of marbles from the East a statement of conquest of the East, as it was for the ancient Romans? Certainly, the use of what seem to be popular capital types elsewhere suggests a degree of triumphalism.³⁸² And inside, the two pulpits were of porphyry, a triumphalist stone—one of red, one of green, and the ciborium also of green.³⁸³ Visitors were much impressed: there are “columns of fine marble fifteen feet high, and the portals decorated high and low with large and small columns so that it would have been a task to count them.”³⁸⁴ Decorative as opposed to structural use of monoliths is found elsewhere.³⁸⁵ But in Venice these all but smother the architectural body, which might be just the luxurious extension of a regional trend which also indulged in the display of antiquities.³⁸⁶ On both the main and Piazzetta façades, the transennae are included in the walls purely as decoration, rather than executing their original function. In Haghia Sophia, perhaps also the source of the marble veneering of the exterior,³⁸⁷ they serve correctly as balustrades. Yet to read such marble richness as some sign of conquest of Byzantium and hence as trophies is surely disproportionate. It would be stronger if documentation were

³⁸¹ Dale, “Inventing a sacred past,” 54, 56.

³⁸² Dennert, Martin, *Mittelbyzantinische Kapitelle. Studien zur Typologie und Chronologie*, (Bonn 1997): capitals with standing birds at the angles are found in San Marco (334: 8 capitals), in the crypt of S Nicola at Bari (341), on Torcello (cat. 342a-b), and in Haghia Sophia at Trebizond (335).

³⁸³ Lorenzoni, Giovanni, “Il porfido, marmo di porpora, in qualche esempio del Veneto medievale,” in Longo, Oddono, ed., *La porpora: realtà e immaginario di un colore simbolico*, (Venice 1998), 299–316.

³⁸⁴ Gontaut Biron, Jean De, *Ambassade en Turquie 1605 à 1610*, (Paris 1888), 8–9.

³⁸⁵ E.g. transepts of the Duomo, Catania; crossing of the Magione at Palermo; various locations in the Duomo at Naples; porphyry columns in the apse at SM in Navicella, Rome, and at Magdeburg—at least in their current conformation.

³⁸⁶ *Il Veneto nel medioevo*, II, 166ff. for S. Maria at Cisano di Bardolino (VR), which has fragmentary 8thC plutei (figs 80–83) inserted in its outside walls as decoration; *ibid.*, I, 52 & fig. 20 for early mediaeval plutei incastrated in the walls of the Pieve of Cisano, near Gardesana.

³⁸⁷ Guiglia Guidobaldi, Alessandra, & Barsanti, Claudia, *Santa Sofia di Costantinopoli. L'arredo marmoreo della grande chiesa giustiniana*, (Vatican City 2004), *passim*; and fig. 349 for veneer panels on the W buttresses.

available to support it,³⁸⁸ the more so in a peninsular context where neither the Pisans nor the Genoese were tardy in using conspicuous marble inscriptions to proclaim their achievements.

That eastern sources and (perhaps) craftsmen were preferred surely means that the commissioners knew that such sources would be recognized, and for this reason admired.³⁸⁹ Favaretto has connected the basilica with the Seven Wonders of the World, and suggested very reasonably Ephesus, Cairo and Alexandria as a source for some of the capitals.³⁹⁰ Indeed, large numbers of the figured sculptures are of Greek marbles,³⁹¹ although some of the reliefs (for example, on the Treasury wall) may be contemporary copies, and not ancient at all.³⁹² There is a distinct preference in transennae for old rather than contemporary material,³⁹³ and for making material newly carved in an older style. Capitals and columns are displayed in profusion,³⁹⁴ many of the former late antique, many freshened-up,³⁹⁵ and few fitting their disparate columns, for which much adjustment up and down was needed.³⁹⁶ Some

³⁸⁸ *Sodini, J.-P., "Le goût du marbre à Byzance: sa signification pour les Byzantins et les non-Byzantins," *Études Balkaniques* 1 1994, 177–201; see 185: the three façades form "un musée unique de la sculpture byzantine."

³⁸⁹ Buchwald, Hans, "The carved stone ornament of the High Middle Ages in San Marco, Venice," *Jbuch Oest. Byz Gesellschaft* XI/XII 1962–3, 169–209 & XIII 1964 137–70; see 170: "leading stone carvers of the San Marco workshop" came to Venice from Constantinople in the later eleventh century," and carved new "kettle" capitals from imported models. Ibid. 157 for stylistic similarities between the San Marco carved marble panels and the eleventh-century phase of the Kariye Camii, and also with the similarly dated Hosios Lukas—so were materials being collected long before the west façade was finished?

³⁹⁰ Favaretto, Irene, "Le meraviglie di San Marco: echi antichi e spolia pagani nel decoro della basilica," in Favaretto, Irene, & Da Villa Urbani, Maria, eds., *Il Museo di San Marco*, (Venice 2003), 169–73, and *ibid.*, "Le meraviglie di San Marco: l'Artemision di Efeso nei mosaici della cupola di San Giovanni," *Arte Documento* 17–19 2003, 131–3.

³⁹¹ Lazzarini, Lorenzo, in Wolters, Wolfgang, ed., *Die Skulpturen von San Marco in Venedig: Die figürlichen Skulpturen der Aussenfassaden bis zum 14. Jahrhundert*, (Munich 1979), 58ff. for marble identifications.

³⁹² Maguire, Henry, "Venetian Art as a mirror of Venetian attitudes to Byzantium in decline," in Atasoy, Sümer, ed., *Proceedings of the International Byzantine-Ottoman Symposium*, (Istanbul 2004), 166–85.

³⁹³ Sheppard, Carl D., "Byzantine carved marble slabs," *AB* 51.1 1969, 65–71.

³⁹⁴ Deichmann, Friedrich W., *Corpus der Kapitelle der Kirche von San Marco zu Venedig*, (Wiesbaden 1981): table, 148–53; Favaretto, Irena, et al., *Marmi della basilica di San Marco: capitelli, plutei, rivestimenti, arredi*, (Milan 2000), 186–92.

³⁹⁵ Their condition after centuries of sea air is remarkable: cf. the Byzantine capitals in the Bodesmuseum, Berlin.

³⁹⁶ Minguzzi, Simonetta, "Aspetti della decorazione marmorea e architettonica," in Favaretto, 29–121: see 41; 60–3 for the interior veneer panels; 127ff. for the capitals, and 162ff. for the plutei (mostly from ancient blocks).

of the bas-reliefs are 11th- or 12th-century Byzantine (could they have been ordered new?), others are Venetian imitations of Byzantine work, and the balance of scholarly opinion is that the Venetians did indeed imitate Mamluk work as well.³⁹⁷ So confused, however, is the Byzantine/imitation arena that, for example, scholars cannot decide whether the ciborium is 13th century or much earlier.³⁹⁸ Thus the antiquities are far from uniform, but they are similar enough to be worked carefully into an aesthetic whole.³⁹⁹ I suggest that collecting material for such a task must have taken years if not decades—and that stockpiles were necessarily formed long before the intricate task of jigsawing the façades together could begin. Francesco Sansovino believes the marbling proceeded in two stages, first through Doge Domenico Silvio in 1071, then in 1206, when the horses came together with “diverse sheets of porphyry and serpentine, and rich marbles.”⁴⁰⁰ He says Domenico Silvio “veneered the Church inside and out, with the finest sheets of marble; these, together with a large quantity of the finest columns, of the highest worth [“di grandissimo prezzo”] he had brought from divers places in Greece.”

Yet in spite of what I have argued above, the balance of scholarly opinion still favours post-1204 as the date for the extravagant marbling of the church’s façades. Demus, for example, suggests that to see what the building looked like at the beginning of the 12thC, we should mentally remove all marble incrustation.⁴⁰¹ Other scholars agree,⁴⁰² and of course all of us can accept that such marble “vestments” should be understood as *regalia insignia*, “express identification with the Byzantium in whose memory, sovereign magnificence and splendid many-coloured emblems she was now triumphantly clothing herself.”⁴⁰³ Little could

³⁹⁷ Melikian-Chirvani, A.S., “Venise entre l’Orient et l’Occident,” *Bull. Etudes orientales* XXVII 1974, 109–26 suggests that a group of Mamluk Islamic metal bowls was in fact made in Venice.

³⁹⁸ Arguments in Weigel, Thomas, *Le colonne del ciborio de’ altare maggiore di San Marco a Venezia: nuovi argomenti a favore di una datazione in epoca protobizantina*, (Venice 2000), 25–37.

³⁹⁹ Poeschke, Joachim, “Architekturästhetik und Spolienintegration im 13. Jahrhundert,” in Poeschke, *Antike Spolien*, 225–41.

⁴⁰⁰ Sansovino, Francesco, *Venetia città nobilissima, et singolare descritta già in XIII libri*, (Venice 1694), 8r–v, 11v.

⁴⁰¹ Demus, *The church of San Marco*, 75.

⁴⁰² Vickers, Michael, “Wandering Stones, Venice Constantinople and Athens,” in Selig, Karl-Ludwig, & Sears, Elizabeth, eds., *The Verbal and the visual: essays in honor of William Sebastian Heckscher*, (New York 1990), 225–47; see 227–8.

⁴⁰³ Concina, Ennio, *A history of Venetian architecture*, (Cambridge 1998), 50.

be more regal than the transfer also to the exterior of the veneer the Byzantines were still using to decorate the interior of their churches,⁴⁰⁴ in the thirteenth century⁴⁰⁵ and the following one, as at the Chora (c.1316–21). This, like Kalenderhane, may reflect the richness of the interiors of earlier Byzantine churches, as well perhaps as the quality of their re-use.

Since accounts of lavish expenditure on decoration are so sparse in the Middle Ages, we need not be surprised by the dearth of contemporary accounts hymning such a wealth of trophies (including the four horses),⁴⁰⁶ and we can acknowledge the argument that the Venetians might well have sold some marble collected after 1204 to offset their disastrous shipping losses.⁴⁰⁷ We might reasonably ask four questions: If from the Sack, whence in Constantinople did the old materials come? The looting of relics is known, but no accounts mention the dismantling of buildings.⁴⁰⁸ Did the Venetians get all the materials, whereas the sacred relics were distributed? When did Venice start to collect antiquities? Whence, other than Constantinople, might post-Sack materials have come?

Only the “Pilastrî Acritani” from S. Polyeuctus in Constantinople (and some capitals)⁴⁰⁹ have a demonstrated source, although the two great columns overlooking the bacino may have come from Chios,⁴¹⁰ and there are comparanda at Iasos.⁴¹¹ These surely reflect a Venetian

⁴⁰⁴ Eastmond, Antony, *Art and identity in thirteenth-century Byzantium: Hagia Sophia and the empire of Trebizond*, (Burlington 2004), 50 fig. 23 for south apse of the Panaghia Chrysokephalos at Trebizond, with 13thC marble cladding in splendid opus sectile, with porphyry panels.

⁴⁰⁵ Thus Buchwald, “The carved stone ornament,” 183, citing a chronicle (written 1267/75) stating work on the façade was still in progress.

⁴⁰⁶ For Nicol, Donald M., “La quarta crociata,” *Storia di Venezia*, II, (Rome 1995), 155–81, taking the horses back to Venice was Dandolo’s great achievement: see 174–5.

⁴⁰⁷ Pryor, John, “The maritime republics,” in Abulafia, *New Cambridge Medieval History*, V, 419–46: 423 for her financial problems: “Half the city’s adult male population was involved, maritime commerce was suspended in order to assemble the fleet, and a new coin, the silver grosso, was minted to pay for it.”

⁴⁰⁸ Kidonopoulos, *Bauten in Konstantinopel*, 227–9.

⁴⁰⁹ Sodini, Jean-Pierre, Barsanti, Claudia, & Guiglia Guidobaldi, Alessandra, “La sculpture architecturale en marbre au VI^e siècle à Constantinople et dans les régions sous influence constantinopolitaine,” in Cambi, Nenad, & Marin, Emilio, eds., *Congresso internazionale di archeologia cristiana*, (Rome 1998), II, 301–76: 317ff. for the atelier at S. Polyeucte and the spread of its products.

⁴¹⁰ Hunt, D.W.S., “An archaeological survey of the classical antiquities of the island of Chios carried out between the months of March and July 1938,” *Annual of the British School at Athens* 41 1946, 29–52; see 46–47.

⁴¹¹ Serin, *Early Christian and Byzantine churches at Iasos*, 59, for an impost capital in

knowledge and enthusiasm for ancient column monuments, to be seen in Constantinople and also perhaps still in Rome, where no fewer than 18 of them adorned the late antique Forum.⁴¹² Byzantine materials could also have come from Ravenna whence the Republic (suzerainty 1441–1509) was still drawing materials in the 15th century.⁴¹³ A good formulation is by Del Bufalo: Venetian commercial routes “penetrated inland, following the ancient trade routes that criss-crossed Asia Minor, through grandiose Graeco-Roman cities or cult sites of the first Christians with their immense ruins—easy prey for pillagers.”⁴¹⁴ The Greek islands, such as Paros and Delos,⁴¹⁵ could have provided a lot of material.⁴¹⁶ White marble is what one expects on Paros, but it is a fair bet that the general whiteness of Delos today is because the more prestigious coloured marbles have been abstracted from the luxurious villas and public buildings, perhaps by the Venetians amongst others. With such variety they would ape S. Polyeuctus’ rich marbles—from Laconia, Egypt, Algeria, Thessaly, Iasos, Marmara, Bithynia, Phrygia, and the Pyrenees⁴¹⁷—the more so because similar features are to found in Islam.⁴¹⁸ This church was still in operation in the tenth century, and Mango thinks it might have been abandoned during the Latin occupation⁴¹⁹ just as Harrison believes that the Polyeuctus capital in Barcelona

the Basilica of the Agora; further examples at 91, with maltese crosses, are to be seen in the Loggia dei Cavalli; and cf. 124–8 for double chancel-barriers in the acropolis basilica, as in the crypt of S. Marco—though it is nowhere stated that the materials in Venice actually came from Iasos.

⁴¹² Jordan-Ruwe, Martina, *Das Säulenmonument. Zur Geschichte der erhaltenen Aufstellung antiker Portraetstatuen*, (Bonn 1995), 53–122 for Rome; 170–7 for Constantinople.

⁴¹³ *Ricci, G. “Ravenna spogliata fra tardo medioevo e prima età moderna,” *Quaderni storici* 71 1989, 537–61; see 537, 542–50: in 1465 the columns of S Severo in Classe, ruined in 14thC, were taken.

⁴¹⁴ Del Bufalo, *Marbres de couleur*, 108, 114.

⁴¹⁵ Spon & Wheler, *Voyage d’Italie* I.184 on Delos “Nous ne vîmes dans cette confusion que deux ou trois chapiteaux d’ordre Corinthien, le reste qui devoit accompagner les colonnes ayant été enlevé par les Vaisseaux Turcs ou Chrétiens”—and leaving Ionic capitals behind.

⁴¹⁶ Spon & Wheler, *Voyage d’Italie*, I.177 for Delos: “grands monceaux de marbre... est si fort couverte, que si on y vouloit présentement bâtir une Ville, il ne seroit pas besoin d’y employer d’autres pierres.”

⁴¹⁷ Harrison, Martin, *A temple for Byzantium: the discovery and excavation of Anicia Juliana’s palace-church in Istanbul*, (London 1989), 77ff.

⁴¹⁸ *Pasquini Vecchi, Laura, “La scultura di S. Polieucto: episodio saliente nel quadro della cultura artistica di Costantinopoli,” *Bizantinistica* I 1999, 109–44 for influence of sites such as Umm az-Za’atir.

⁴¹⁹ Mango, Cyril, & Sevckenko, Ihor, “Remains of the Church of St. Polyeuktos at Constantinople,” *DOP* 15 1961, 243–247; see 246. Freely, John, & Çakmak, Ahmet S.,

went there “presumably at the time of the Fourth Crusade.”⁴²⁰ But why were the 3.66m verde antico columns of S. John Studion not taken, if the church was indeed ruinous by the 13th century? Probably because the façade was built according to specifications, so that galley-captains were instructed to return with shafts of certain colours and size-ranges—and the shafts of S. John Studion were too large.

Marangoni avers that all the pieces are from the East, “and from the Archipelago, and especially from the Sack of Constantinople.”⁴²¹ As for the rest of the (largely undug) Byzantine city, our vague knowledge of dilapidation does not allow any more than guesses about the source of the remainder. Venetians did own property and land in Constantinople as in the Veneto: legal documents (and not just here) were often careful to specify possession and transfer of all “which is likewise under the earth and above the earth.”⁴²² This might sometimes refer to water supplies, but it is more likely they knew all about digging things up, including re-usable building materials.⁴²³ However, although chance finds on Venetian-owned lands in Constantinople seem likely, this cannot account for the quantities used to decorate S. Marco. Negative arguments are dangerous but, given the capacity of their vessels, why did the Venetians not take the porphyry sarcophagi from the Holy Apostles? Was weight the problem? Cristoforo Buondelmonti saw them there in 1420, when the church was “ruined by time.”

If indeed the materials all came from the 1204 Sack, why did the Venetians apparently get it all? We have no indication why the Venetians did so, but common sense (often a dangerous guide) might indicate that shipping was not the problem, since surely everyone else booked return tickets, as it were. But we should expect other nationalities to be far from indifferent to the possibility of marbles as booty, assuming always they could get them home. Yet in the sources there is not a word

Byzantine monuments of Istanbul, (New York 2004), 76 note that coin finds indicate it was destroyed “shortly after the reign of Isaac II Angelus (r.1185–95), probably during the sack of the city by the Latins in 1204.”

⁴²⁰ Harrison, *A temple for Byzantium*, 96 & fig. 111.

⁴²¹ Marangoni, *Delle cose gentilesche*, 351.

⁴²² Morozzo della Rocca, R., & Lombardo, Agostino, eds., *Documenti del commercio veneziano nei secoli xi–xiii*, (Turin 1971), I, 19 (1086), I.25 (1095) and I.177 (1167), the last being for Constantinople.

⁴²³ Maccabruni, Claudia, “Cremona: l’immagine della città romana nel Medioevo,” in Tozzi, Pierluigi, ed., *Storia di Cremona: l’età antica*, (Cremona 2003), 396–419; see 408: she notes the upward revaluation of land in the 11th century, because of the known existence of building materials from old buildings or roads.

about shipping marble back to Europe, except for a 1304 request to sea captains for very specific pieces.⁴²⁴ This fits well (if too late) with Del Bufalo's suggestion that the builders of the façades of S. Marco (he believes they must have been Byzantines) carefully specified what they required. For he has observed the precision of the work, and claims that some capitals and columns have been re-used without any adaptation or modification being necessary. This suggests to him that buildings were indeed being dismantled in Constantinople and elsewhere after 1204, because he believes that such precision could not have been obtained from miscellaneous material collected into stockpiles.⁴²⁵

There is also, of course, the matter of Venice's manifold connections with Islam, her (later) importance as a shipping agent carrying Mamluk goods, and her use of Islamic motifs. Some motifs, such as marble latticed windows, are both Islamic and Byzantine, being found at Hosias Loukas as well as at Córdoba and Damascus, popularised perhaps by her rivalry with marble-rich Amalfi, Pisa and Genoa.⁴²⁶ Islam's interest in marble (especially richly coloured) was constant well before Charlemagne, and a pilgrim from Verona in 1335 notes the marvels of the Umayyad Mosque at Damascus, and the fact that the portico outside has columns taller than those at Venice.⁴²⁷ Venice was dealing

⁴²⁴ Connell, *Sculptors and stonemasons*, 111: in 1304 Gabriele Dandolo, Captain of the Fleet, was asked to look out for marble on ruinous sites. More specific were the instructions for Giovanni Dandolo in 1309 regarding *beautiful marbles for S. Marco*: cf. Thiriet, Freddy, *Délibérations des assemblées vénitiennes concernant la Romanie*, I, (Paris 1966), item 164, for Mykonos and the nearby islands: these should be in the form of pillars or, at least, half-columns, of which marble veined with green; and the grain of the marble should be very fine. Mykonos and Rhencia do have marble quarries, but the instructions strongly suggest that it is old blocks that were sought.

⁴²⁵ Del Bufalo, *Marbres de couleur*, 112, 114. He sees 1159–1261 as the period of greatest activity on the S. Marco façades.

⁴²⁶ *Howard, Deborah, "Venice and Islam in the Middle Ages: some observations on the question of architectural influence," *Architectural History* 34 1991, 59–74; cf. figs 1–2, 7–8, 11ff. for comparanda. Ibid., Howard, Deborah, *Venice & the East: the impact of the Islamic world on Venetian architecture 1100–1500*, (New Haven 2000): see figs 185–6 for Ca'Dario, and fig. 222 for the Cairo Iwan al-Kabir 1333–4 as a possible influence on the Doges' Palace; Schuller, *Il palazzo ducale di Venezia*, 427, suggests the polychromy of that building should be compared with Isphahan and Samarkand, plus Bistam.

⁴²⁷ Roehricht, Reinhold, ed., "Le pèlerinage du moine augustin Jacques deVerone (1335)," *Revue de l'Orient Latin* III 1895, 155–302. See 202: its pavement "is of marbles and polished alabaster...over 100 beautiful marble columns...over 2,000 candelabra inside...No church in Italy is of such great size and decoration as this mosque." And the portico outside "has four monolithic columns which I believe to be taller and broader than those on the square of S. Mark"—which are probably 9m as opposed to Venice's c.7m.

in slaves in Rome about 748, and about 775 her shipping expanded down the Adriatic “to all points in the caliphate and the Byzantine empire.”⁴²⁸ Large columns were being imported in 1172, if we believe Sanudo’s account of one dropped in the canal, and not recovered.⁴²⁹ If we knew more about some of the churches of Constantinople (the Pharos, Blachernae, S. Mary Peribleptos, the Holy Apostles), we should be in a better position to judge the relative importance of Byzantium and Islam for Venice.

So when did Venice start trading with the East? When Notker writes of “*orientalium divitiarum*” in the markets of Pavia brought there by the Venetians, he could certainly be referring to his own time (c.886), rather than the previous century.⁴³⁰ But then Venetian ships were already in Tunisian and Algerian ports from the 8th century, about 30 years before the Pisans and Genoese, and transporting Idrisid messengers from North Africa to Sicily in 813.⁴³¹ Venetian merchants are documented in Ravenna c.789/91: Charlemagne ordered them expelled, and the Pope in his turn ordered the Archbishop to confiscate their “*presidia [praedia?] atque possessiones*.”⁴³² If the reading is indeed “*praedia*,” perhaps this booty included marble similar to the materials Charlemagne was soon to need himself for Aachen. So trade-wise it is feasible that some of the marbles now decorating the church were in fact collected for the version of the ducal chapel after the 976 fire, which was “radically, and very finely rebuilt and enlarged, probably from 1083 onwards.”⁴³³ Perhaps not coincidentally, in 1082 or 1084 the Byzantine Emperor gave Venice trade concessions “which made them practically masters of the Empire’s commerce.”⁴³⁴ What is more, tentative conclusions for

⁴²⁸ McCormick, Michael, “New light on the ‘dark ages:’ how the slave trade fuelled the Carolingian economy,” *Past and Present* 177 (2002), 17–54; see 32, and 46ff. for her slave-trading.

⁴²⁹ Sanudo, *Le vite dei Dogi*, 266, 283 for another version: “portati di Grecia, overo di Costantinopoli.” Were these fellows to the surviving columns, that of S Theodore of red Egyptian granite, and of S Mark of grey?

⁴³⁰ *Gesta Karoli* II.9, MGH SS II.752. RM: Gasparri, Stefano, “Venezia fra i secoli VIII e IX. Una riflessione sulle fonti,” *Studi veneti offerti a Gaetano Cozzi*, (Venice 1992), 3–18: “War fleets, slaves, reliquaries—all presuppose the existence of substantial commercial activity.”

⁴³¹ Citarella, “La crisi navale araba,” 203.

⁴³² McCormick: *Register* 216.

⁴³³ Concina, *A history of Venetian architecture*, 22.

⁴³⁴ Cahen, Claude, “Amalfi en Orient à la veille, au moment et au lendemain de la première croisade,” in Pontieri, Ernesto, ed., *Convegno internazionale: Amalfi nel medioevo*, (Salerno 1977), 271–83; see 275.

the earlier collection of old marble might be drawn from McCormick's demonstration that it is the period around 800 when travellers, coins, ships and buildings increase in the Veneto. He reprints Dorigo's chart showing church-building numbers in the eighth (12), ninth (23), tenth and eleventh (22 each) and thirteenth (10) centuries to suggest the new money came from international trade, and at least in the later eighth century because the Caliphate suffered a labour shortage due to plague.⁴³⁵ If we think of Pisa exalting in her architecture through trade, is it not likely that Venice did likewise but much earlier, also spurred on perhaps by various aspects of the Carolingian renovatio and Islamic building? For Venice was enamoured of Islamic art long before the Fourth Crusade.⁴³⁶ Given the strong Islamic influence in Venice,⁴³⁷ did the plethora of columns on S. Marco represent a response to novel Islamic uses for classical and Byzantine columns?

Where around the Mediterranean might the sources for the marbles on S. Marco be found? It bears stating that the Romans spoil the possibility of determining sources via any petrological analysis, because they had already shipped marbles from one end of the Mediterranean to the other. So that the fact that a column-shaft is in porphyry, or cipollino, or giallo antico, is no help at all in determining whence the Venetians might have taken it. Schulz is unhappy about the notion that everything did come from Constantinople, suggesting that the Imperial authorities would not have allowed such spoliation; and instead he suggests "the ruins of shrunken and impoverished Ravenna and other decayed outposts of Byzantium in Italy and around the Mediterranean."⁴³⁸ Perhaps they did not spoliates standing churches, given the survivals (columns, capitals, transennae, sarcophagi and sometimes veneer) in those churches we know about (an important qualification) in Ravenna, such as the Duomo, S. Apollinare Nuovo, S. Apollinare in Classe, and S. Vitale. To these we might add not only Salona, with its enormous churches,⁴³⁹ and re-used sarcophagi,⁴⁴⁰ but also Roman sites in Syria and North Africa.

⁴³⁵ McCormick *Origins*, 530–1, 775–6.

⁴³⁶ Grube, E. (ed.), *Venezia e l'Oriente Vicino, arte veneziana e arte islamica*, (Venice 1989), *passim*.

⁴³⁷ Muraro, Michelangelo, "Questioni 'islamiche' nell'arte veneziana," *Actas del XXIII Congreso Internacional del Arte: España entre el Mediterráneo y el Atlántico*, (Granada 1977), 2 156–167.

⁴³⁸ Schulz, *The new palaces of medieval Venice*, 45.

⁴³⁹ Dyggve, Ejnar, *History of Salonian Christianity*, (Oslo 1951), II.17, IV.9, IV.33 for samples.

⁴⁴⁰ Cambi, Nenad, "Il reimpiego dei sarcofagi romani in Dalmazia," in Andreae, *Reimpiego dei sarcofagi*, 75–92.

A further possibility is to examine the typology of the structures yielding the most prominent elements, namely Roman theatres, which share several characteristics with S. Marco.⁴⁴¹ The Venetians could have read that Romans displayed war booty and art in such structures,⁴⁴² which would provide a neat explanation for their overloading of the façades of their church with antiquities (although they eschewed 3D sculpture, except for the Bronze Horses). Another suggested source is the Hippodrome at Constantinople,⁴⁴³ the sphendona colonnade of which, with its architraves, was apparently still visible in the 15th century, together of course with some of the trophies the Venetians would have seen in 1204.⁴⁴⁴ When we read of building works from the dogate of Sebastiano Ziani (1172–8) onwards, including “the building of a molo, or quay, a litus marmoreum”⁴⁴⁵ near to the present Piazzetta, is it possible to date that quay before 1204?⁴⁴⁶ Materials also came from her own lagoon: some of her Renaissance marbles are documented as coming from abandoned churches on sinking islands, and S. Marco was still getting pieces from the island of Ammiana in 1455.⁴⁴⁷ Torcello was a certain source in the Middle Ages,⁴⁴⁸ and was still supplying antiquities in the fifteenth century, conceivably Byzantine (and trying to keep scavengers away, even complaining to the Doge in 1429). Again, it seems to have been customary for commissioning nobles to supply the marble themselves, or donate them,⁴⁴⁹ so perhaps they had kept caches centuries

⁴⁴¹ dvd_venice.doc.

⁴⁴² Favro, *Urban image*, 59 for Pompey’s portico adjacent to his theatre. Beard, Mary, *The Roman triumph*, (Cambridge MA 2007), 25: “With its array of treasures from the conquests, any walk through Pompey’s porticoes must also have entailed a re-viewing of the spoils first seen on September 28 and 29, 61—the procession being re-enacted in the movement of each and every visitor, as they passed the objects on display.”

⁴⁴³ Freeman, Charles, “St Mark’s Square: an Imperial hippodrome?” in *History Today*, 54.4 April 2004, 39–45; on the Horses.

⁴⁴⁴ Bodnar, Edmond, ed., Scalamonti, Francesco, *Vita viri clarissimi et famosissimi Kyriaci Anconitani*, (Philadelphia 1996), 112.

⁴⁴⁵ Concina, *A history of Venetian architecture*, 47.

⁴⁴⁶ When Petrarch wrote of Venice as “sopra solidi marmi fondata,” (Sen.IV.3), is this what he had seen?

⁴⁴⁷ Connell, *Sculptors and stonemasons*, 137ff.

⁴⁴⁸ Cessi, Roberto, *Documenti relativi alla storia di Venezia anteriori al mille. Secoli V–IX*, (Padua 1942), 93: in 829 Doge Giustiniano Participazio willed stones from Torcello for the construction of S. Marco: “quidquid exinde remanserit de lapidibus et quidquid circa hanc [p]etram jacet de casa Theophilato de Torcello hedificentur basilica beati Marci evangeliste, sicut supra imperavimus.”

⁴⁴⁹ Connell, *Sculptors and stonemasons*, 138: Giacomo Barbarigo, Captain of the Gulf, presented columns and slabs to the nuns of S Zaccaria in 1462, and he may have got them from the East, or somewhere down the Adriatic.

earlier as well.⁴⁵⁰ Similarly, Renaissance documents suggest that old columns were in demand for cutting up, that commissions might be given for the finding and delivery of columns, and that whole shiploads of Greek marble were still being imported.⁴⁵¹

Whatever the date for the application of antiquities to S. Marco, Venice continued her interest in marble well after the Sack of Constantinople, at least in part because she was now more powerful than her erstwhile rivals Genoa and Pisa. As Concina observes, Venice's sources—such as Byzantium—“saw polychrome decoration and precious marble as constituting one of the main signs in Venice's own tradition of continuity with the Antique,”⁴⁵² which continued well beyond the thirteenth century. Cutler has observed that more than 12 items in the Venice Treasury appear only in the 1325 inventory (and not in that of 1283),⁴⁵³ which suggests they may not have been looted at the Sack.⁴⁵⁴ Laiou notes the recording of 39 columns and other marbles offered as collateral on a mortgage by a 13th-century Venetian borrower in Korone.⁴⁵⁵ This might have been widespread but documents are not often as detailed and specific. Venice was getting glass from Tyre in 1175; in 1201 was in possession of land near Korykos (with several antique cities nearby); she sacked churches and destroyed buildings in Zara (Zadar, on the Adriatic) in 1203; and her merchants were enjoying the baths at Tyre in the 1240s. She had a *fondaco* at Alexandria (a vast ruinfield) by the early 13th century.⁴⁵⁶ She might have been stockpiling stone in Syria in 1244, if that is what is meant by “*Domus, in palatio magno fontici in solario de medio existentes . . . Sunt due camere in dicta*

⁴⁵⁰ Goy, Richard J., *Building Renaissance Venice: patrons, architects, and builders, c.1430–1500*, (New Haven 2006), 133, 287 note 41 for Torcello; 53, 81, 82 for trading and private sales.

⁴⁵¹ Sohm, Philip L., *The Scuola grande di San Marco, 1437–1550: the architecture of a Venetian lay confraternity*, (New York 1982), doc. 224: the brothers at S Pietro Martiro on Murano are paid for one marble column in 1526, for the Scuola di San Rocco; and Carlo Capello is paid in 1527 for two columns of Greek marble ordered over two years before; doc. 245: a worker is paid for a shipment, size unknown, in 1546.

⁴⁵² Concina, *A history of Venetian architecture*, 9; Brown, *Venice and Antiquity*, passim; Rosand, David, *Myths of Venice: the figuration of a state*, (Chapel Hill 2001).

⁴⁵³ And which was presumably once as rich in textiles as San Nicola at Bari: cf. Calo Mariani, “Sulle relazioni artistiche fra la Puglia e l'Oriente latino,” 49.

⁴⁵⁴ Cutler, Anthony, “From loot to scholarship: changing modes in the Italian response to Byzantine artifacts, ca.1200–1750,” *DOP* 49 1995, 237–67; see 246.

⁴⁵⁵ Laiou, A.E., “Venice as a centre of trade and of artistic production in the thirteenth century,” in Belting, H., ed., *Il Medio Oriente e l'Occidente nell'arte del XIII secolo*, (Bologna 1982), 15–16; Cutler, “From loot to scholarship,” 247 note 60.

⁴⁵⁶ See *dvd_venice.doc* for Alexandria as a possible source.

domo versus curiam, que est iusta ecclesiam, quas commune tenet pro imittendo lignamina, calcinam et lapides.”⁴⁵⁷ The Venetians had trade treaties with the Rum Seljuks, who were also at their height in the first half of 13thC, and in 1219 the emperor of Nicaea, Theodore Laskaris, gave the Venetians extensive trading rights in his part of Asia Minor. Thus the Venetians came into close contact with two entities (including diplomatic visits to Konya) who used both marble blocks and antique sculptures in beautifying walls. Venice had no city walls, however, so where else might she use for extravagant display other than S. Marco? Did she know about the erstwhile appearance of grand harbours such as Miletus and Ephesus?

*The Gate at Capua, and Frederick II's antiquities*⁴⁵⁸

Frederick has his own excellent website,⁴⁵⁹ and he is everyone's favourite revivalist.⁴⁶⁰ For some he has been oversold as a cultural innovator,⁴⁶¹ and especially in the field of Islamic art⁴⁶²—but not for others.⁴⁶³ An early description of the Porta delle Torri at Capua, built in 1234, emphasizes its use of marble, which was surely old.⁴⁶⁴ The Gate is included here to demonstrate that Frederick created a work which prompts us to question

⁴⁵⁷ Tafel, Gottlieb Lukas Friedrich, & Thomas, G.M., *Urkunden zur älteren Handels- und Staatsgeschichte der Republic Venedig*, I, (Venice 1856), 409, 168, 364, 371 and 395 respectively.

⁴⁵⁸ dvd_frederick_II_and_antiquities.doc *Esch, Arnold, “Antico, reimpiego e imitazione dell’,” in *Federico II, Enciclopedia Fridericiana* (Rome 2005), I 44–9.

⁴⁵⁹ <http://www.stupormundi.it/>.

⁴⁶⁰ Willemsen, Carl A., *Bibl. zum Geschichte Kaiser Friedrich II und der letzten Staufer*, (Munich 1986), lists 2028 items, and that is before all the congresses of 1994!

⁴⁶¹ Abulafia, David, “The Kingdom of Sicily under the Hohenstaufen and Angevins,” in Abulafia, *New Cambridge Medieval History*, V, 497–521; see 506: “Frederick II has long retained an exaggerated reputation for his cultural activities.”

⁴⁶² Behrens-Abouseif, Doris, “Sicily, the missing link in the evolution of Cairene architecture,” in Vermeulen, U., & De Smet, D., eds., *Egypt and Syria in the Fatimid, Ayyubid and Mamluk eras*, (Louvain 1995), I, 285–312; see 286: “despite his well-known affinity for Arab culture and life style, does not seem to have been particularly interested in Islamic art.”

⁴⁶³ Binski, Paul, *Art & Architecture*, in *ibid.*, 84–104. 101 the Gate is “imperial classicism,” and his appropriation of Roger II's porphyry sarcophagus is “daring universalism.”

⁴⁶⁴ Campano, G.A., *Brachii Perusini vita et gesta*, RIS XIX.4, col. 597: “totus quadrato confectus marmore et lapidis pro calce liquatam connectit plumbum, et ne quid muralia pila officiant, neve bombardae gravi ictu concutiant...inter duas turres regium cubiculum, Quia iter erat supra caput altissima prominet testudine, marmoreis statuvis vetustisque imaginibus distinctum, atque ornatum.”

the smoke-and-mirrors aspect of his supposed revivalisms, because this is shown to be new architecture using some antique materials, albeit an almost textbook demonstration of how to emanate power via architecture and sculpture.⁴⁶⁵ Frederick was certainly interested in the antique,⁴⁶⁶ but this monument bears the same relationship to classical antiquity as does the Mezquita at Córdoba—materials only, for a completely different effect, although with the fine stonework found on his other structures, such as Gioia del Colle and Lucera (which contains old columns). It sits at this location in this chapter as a contrasting footnote to Venice, because for S. Marco Venice does indeed employ antiquities to build a façade which, until we get to the arched exedrae, is a witty restatement of a Roman *scenae frons* (ruins of which were a likely source for some of the embellishing antiquities). The Gate, however, although often interpreted as the first attempt we know of since Antiquity to reconstruct a complete and full-size antique-looking ensemble, and the very symbol of political *renovatio*,⁴⁶⁷ is in no sense an accurate reconstruction of an antique triumphal arch—any more, perhaps, than Porta Marzia at Perugia. Nor perhaps does it try to be so,⁴⁶⁸ as far as can be judged from its fragmentary state.⁴⁶⁹ Military architecture was too important for revivalist romanticism. Even given that “statues on gates could signify many nuances of dominion, protection, intimidation or defiance,” Gardner correctly describes its placement of sculptures as “idiosyncratic and without classical precedent.”⁴⁷⁰ Nevertheless, the gate clearly made

⁴⁶⁵ Speciale, Lavinia, & Torriero, Giuseppina, “Epifania del potere: struttura e immagini nella Porta di Capua,” in Quintavalle, Arturo C., ed., *Medioevo: immagini e ideologie*, (Milan 2005), 459–74.

⁴⁶⁶ Esch, Arnold, “Friedrich II und die Antike,” in Esch, Arnold, & Kamp, Norbert, eds., *Tagung des Deutschen Historischen Instituts in Rom in Gedenkjahr 1994*, (Tübingen 1996), 201–34.

⁴⁶⁷ Willemsen, C.A., *I castelli di Federico II nell'Italia meridionale*, (Naples 1979), 45.

⁴⁶⁸ For a full treatment of the Capuan gate, and an *aggiornamento* on the problem, suggesting a lessening of direct antique in favour of Provençal influence, cf. Bologna, F., “CESARIS IMPERIO REGNI CUSTODIA FIO: La porta di Capua e la ‘interpretatio imperialis’ del classicismo,” in del Treppo, M., ed., *Nel segno di Federico II: unità politica e pluralità culturale del Mezzogiorno*, (Naples 1989), 159–89; Tomei, Silvia, “La porta di Capua: nuova ipotesi di ricostruzione,” *Riv. Ist. Naz. di Archeologia e Storia dell'Arte* 57 III Series XXV 2002, 259–78 for an up-to-date bibliography.

⁴⁶⁹ For how it might once have looked, cf. Scaglia, G., “La ‘porta dei torri’ di Federico II a Capua in un disegno di Francesco di Giorgio,” Part I, *Napoli Nobilissima* XX 1981, 203–21.

⁴⁷⁰ Gardner, Julian, “An introduction to the iconography of the medieval Italian city gate,” *DOP* 41 1987, 199–213; see 202, 209; at 209 he reprints Andrew of Hungary’s transcription from the Capua Gate: *Caesaris imperio regni custodia fio / Quam miseros*

a great impression as a touchstone of marbled splendour. One 14th-century traveller compares it with the Propylea at Athens.⁴⁷¹

Because there were plenty of varied antiquities standing in the vicinity, true revivalism is effortless hereabouts. Some splendid and rare monoliths, for example, have found their way into the arcades of the Duomo of SM Capua Vetere. At Capua itself, the Museo Campano is rich in antiquities, displayed near to sculptures from Frederick's gate. Just as at Amalfi,⁴⁷² the Capua Duomo has monoliths in both atrium and campanile (rebuilt by Bishop Erveo 1072–86?), and displays inscriptions in the latter, as well as a 3D keystone figure from the theatre. In other words, antiquities were re-used at Capua long before Frederick was born. At Benevento, antiquities were set into the Duomo campanile in 1279, although perhaps taking the lead from an earlier tower, or from the material in the Rocca dei Rettori, which could have been placed at that location centuries earlier. Frederick could have mounted actual antiquities (as at Spello, or on Perugia's Palazzo dei Priori, or as he himself did elsewhere),⁴⁷³ and done so for quasi-economic reasons.⁴⁷⁴ Instead he featured newly-carved marble portraits in a classicising style, now in the Museo Campano. These are perhaps part-inspired by keystone-heads in the amphitheatre at SM Capua Vetere. His head of Capua Fidelis, for example, is also inspired by late Roman colossal heads, such as that in the museum at Barletta. We can admire Frederick's interest in "portraiture" (without trying here to analyse that sticky term) as well as in gigantism (needed because of the scale of the structure), and then wonder what exactly Brachius meant by the phrase "marmoreis statuīs vetustisque imaginibus." Might the gate also have been ornamented

facie quos variare scio / Intrent securi qui querunt vivere puri / Infidus excludit timeat vel carcere trudi—which he compares with the admonition on Porta Soprana at Genoa, "raised under the threat of attack by Barbarossa."

⁴⁷¹ "Relation du pèlerinage à Jerusalem de Nicolas de Martoni, notaire italien (1394–5)," *Revue de l'Orient Latin* III 1895, 566–669; see 650: "est de lapidibus marmoreis, pulcris laboribus fabricatus, sic pulcrer sicut est introitus turrim civitatis Capue."

⁴⁷² Pensabene, *Contributo*, 22ff.; Capua also has inscriptions in the base.

⁴⁷³ Lachenal, L. de, "Il rilievo frammentario con cavalieri reimpiegato a Castel del Monte. Alcune note sugli esordi della scultura lapidea in Apulia," *Rivista dell'Istituto Nazionale d'Archeologia e Storia dell'Arte* XIV–XV 1991–2, 131–52; 150: from a funerary monument, she concludes.

⁴⁷⁴ Wataghin, G.C., "Archeologia e 'archeologie.' Il rapporto con l'antico fra mito, arte e ricerca," in Settis, Salvatore, ed., *Memoria dell'antico nell'arte italiana, I: l'uso dei classici*, (Turin 1984), 171–217; cf. 184–9, "Le scoperte medievali;" 186: "illimitate riserve di pietre e marmi già lavorati o comunque pressochè pronti all'uso disponibili nelle rovine antiche che si può valutare la portata degli interessi economici coinvolti."

with antique bas-reliefs of some kind? Or did he mistake the sculptures for actual antiquities?

The more one looks at his architecture, the more various Frederick's sources appear to be, not only German and antique (and, for some, French, *pour encourager les autres*), but also from Cilician Armenia.⁴⁷⁵ There are Islamic influences as well,⁴⁷⁶ including for Losito the Dome of the Rock and geometrical intricacy.⁴⁷⁷ This is seen in the Castello dell'Imperatore at Prato, where the stone of the entrance arch is superbly cut with jogged voussoirs and ablaq that they could have admired in Aleppo or (for the former) in the entrance to the Mausoleum of Theoderic at Ravenna. It has also been suggested that the fortifications of Mahdiya (present-day Tunisia) may have impressed him, so that he may have imitated at Capua both the form and the dimensions of the city gate.⁴⁷⁸ The similarities are certainly close, and that prestigious trading city would have been well known to Europeans (not least to the Normans of the 12th century)⁴⁷⁹ for its wealth, its luxury products, and its Great Mosque. In addition, Frederick's architects might have originated anywhere. Cadei, studying the origins of his fortress-cum-palace architecture, looks at the Ribat at Sousse as a prototype, as well as at Qasr el-Kharana (705–15), and Qasr Al-Hayr West (724–43), both paralleled by remodellings of classical structures (he cites Qasr Al-Hallabat & Qasr Al-Azraq).⁴⁸⁰

Conclusion

The cadence of use and re-use in Italy is dependent upon the overlapping motors of population levels, fashion, geography, commerce and

⁴⁷⁵ Cadei, Antonio, "I castelli federiciani: concezione architettonica e realizzazione tecnica," in Toubert, Pierre, & Paravicini Bagliani, Agostino, eds., *Federico II e la Sicilia*, (Palermo 1998), 183–201: see 186ff. for Korykos, Silifke and Anamur.

⁴⁷⁶ Penta, M.T., "Influssi arabi e nordici sull'architettura dell'Italia meridionale ai tempi svevi," *Archivio Storico per le province napoletane* XLI 1962, 175–92.

⁴⁷⁷ *Losito, Monica, *Castel del Monte e la cultura arab-normanna in Federico II*, (Bari 2003); 83–124 for the octagon, and 125–40 for antique influences on the stonework.

⁴⁷⁸ Bering, Kunibert, *Kunst und Staatsmetaphysik des Hochmittelalters in Italien: Zentren der Bau- und Bildpropaganda in der Zeit Friedrichs II*, (Essen 1986), 35–8.

⁴⁷⁹ Amari, *Musulmani di Sicilia*, III.409ff.

⁴⁸⁰ Cadei, A., "Architettura federiciana. La questione delle componenti islamiche," in del Treppo, *Nel segno di Federico II*, 148–9: at Qasr Al-Azraq "l'impronta dell'eredità antica si in netto regresso... malgrado la specificità di echi classicizzanti nella porta fiancheggiata da torri e protetta dd caditoie... e malgrado i sistematici reimpieghi classici nei sostegni del cortile."

technology. During our period, there is no universal and increasing admiration for antiquities but, rather, different preferences stemming from local conditions, and hence a range of possible reasons for their re-use.

If we can assume that large quantities were available in earlier centuries, most of the evidence for ecclesiastical and civic re-use (in city walls and public structures) has been obliterated in later constructions to cater for an expanded population. Little is known of palace architecture before the 13th century. Large quantities were swallowed up in the great civic expansions of the later Middle Ages. For Milan as for Pisa, we can only surmise that many of her local antiquities were consumed (not displayed) in the new cathedrals.⁴⁸¹ Other cities with a richly marbled Roman past (such as Cremona)⁴⁸² conceivably traded away most of their materials to cities such as Modena and Parma, which were either richer or, probably, just more interested in marble.

Geography aided the re-distribution of marble. If, in France, the population growth was in the north distant from marble-rich Provence and usually from useful rivers, in Italy it was almost everywhere but Rome, whose own stocks, along with those of Ostia/Porto, were easily accessible. The very shape of the Italian peninsula made transport relatively easy if sometimes very lengthy, the more so since the majority of cities were on the coast or could easily reach it by river or canal (as in Lombardy). In France, on the other hand, the monuments of Provence seem to have sufficed for stripping, and there was no concerted effort to loot foreign marbles in large quantities until Louis XIV developed Versailles, generating a need greater for sophisticated pieces (and quantities?) than the hexagon or the Pyrenees quarries could fill.

Commerce seems to have greatly affected the sources used. In an expanding Europe, the greatest profits were made by trading abroad, often in luxury goods. Almost by definition, a luxury is something unobtainable at home without effort—namely travel to its source or entrepôt. The early centres (such as Ravello, Amalfi and Salerno) probably imported their marble from nearby. Benevento seems to have re-used only local material. But the Big Three positively shunned local materials when they could, precisely because they were local (just as the ancient Romans preferred foreign marbles, from as far away as possible). Pisa and Genoa therefore imported large quantities, appar-

⁴⁸¹ Although for example S. Vincenzo in Prato, Milan, in its 11thC rebuild, displays substantial re-use in nave and crypt.

⁴⁸² dvd_cremona.doc.

ently believing that such imports had some special cachet. They could easily have quarried marble in the Lunigiana, just as they certainly quarried local limestone for their churches great and small—but their dignity required exoticism. Venice is the extreme example of the same snobbery, for she would surely have been able to find plenty around Aquileia and down the Adriatic—and it is difficult to believe that her architects, commissioners and educated populace could not distinguish between the various styles, qualities and origins of shafts, capitals or bas-reliefs. But she ignored the region in favour of points East, until the lagoon was harvested (plundered?) to clothe Renaissance buildings. The inescapable conclusion is that exoticism was placed way beyond mere admiration for the material itself, even if frequently the “summoning up of eastern lands is more impressionistic than archaeological.”⁴⁸³

Fashion also encompassed a taste for coloured marbles which it was probably known no Italian quarries could satisfy. Snobbery, the free-spending sister of fashion, also played a part: Venice, for instance continued to use imported coloured marbles for the spectacular church of SM dei Miracoli (1489), and also for the exterior of the Scuola Grande di S. Marco (1485ff.). Such coloured marbles are pleasing in themselves, but how confident may we be that sufficient commissioners and architects had read enough ancient authors to be aware of the political economics and hierarchies of marble use in the Roman world? It would indeed be symmetrically neat if, by such importing, they were imitating ancient Rome to proclaim their own marble map of the Mediterranean. Perhaps this would be as a measure of trade rather than of empire, as a proof of their reach and sometimes as an actual trophy of naval victory. Granted that the re-use of marble may reflect the desire to emphasise tradition and hence continuity, we cannot know how chronologically distant such cultural horizons were. If they had read their ancient authors, they would have known that coloured marbles were imported by the Romans—though whether they actually knew or cared about the source of even the predominant varieties of marble cannot be documented, except by the very fact of their survival. Yet if they did not care about origins, why did the Venetians go abroad for their exotica instead of hunting for them on Italian soil?

⁴⁸³ Pincus, Debra, “The Stones of Venice in the Baptistry of San Marco: Eastern Marbles in Western Mosaics,” in Striker, Cecil L., ed., *Architectural Studies in Memory of Richard Krautheimer*, (Mainz 1996), 137–42; see 140.

Nevertheless, a taste for marble as luxurious and coloured marble as doubly so is an easier thesis to support than any notions of Rome-related power, for there is not one single instance in the Middle Ages of any building which thoroughly imitates a pagan Roman one, in spite of there most assuredly being plenty of models around. Adapting Early Christian models is inherently more likely, and provides one explanation for those earlier-than-Millennium reliefs which we find re-used and displayed in later churches. Unfortunately, in most cases the earlier church has gone, but there is one informative exception. Large quantities of material from the old basilica are used in the new St. Peter's—although it is not clear that they are any longer intended to look old.⁴⁸⁴ As Bosman notes (in a book tellingly entitled “The Power of Tradition”), heaving 8.9m columns around was not easy—but could it be that their use in much larger ensembles such as the altar aedicules where so many of them found a new home was intended to underline not just tradition, but the sheer size of the new construction (for antique shafts were also incorporated in the immense façade) to those few cognoscenti who could recognise the antiquities as such? Certainly, it helped that the disparate dimensions of the shafts meant it would also have been difficult to use them smoothly and effectively in clutches larger than pairs.⁴⁸⁵

This question—and Bosman's title—can be extrapolated into an examination of mediaeval technology, for notions of power as exemplified in strenuous re-use can be more easily understood as a celebration of commerce linked to technology. Technology builds the ships; warfare sometimes clears the path for commerce; wealth from trade brings prosperity; and this in its turn is expressed by building bigger and better than the neighbours, often employing monoliths which it was an achievement probably to disinter and disengage, and certainly both to move and to erect. The palm here goes to Pisa, although Venice

⁴⁸⁴ Bosman, Lex, *The power of tradition. Spolia in the architecture of St. Peter's in the Vatican*, (Hiversum 2004), 75–104; and cf. 113: “the use of spolia was not at all a self-evident element.”

⁴⁸⁵ Some Renaissance drawings of the columns show them with the tops aligned, so that the bottom are uneven. The architect-draughtsmen are perhaps wondering how to deal with such variations—and conclude that the aedicule-flanking solution, in St. Peter's and in the Lateran, is the easiest to implement. Raphael's first project for the church (Serlio 1540) shows a plan with 36 columns for the portico, and 36 for the transepts and apse—perhaps a meditation on how to re-use most of the 100 columns from the old basilica? And was the peristyle of Bramante's dome (again, Serlio 1540), with 48 tall columns, and 32 shorter ones, perhaps another?

proved she could likewise lift weight with the two great columns on the waterfront, plus the *Pilastri Acritani*. It is surely easier to develop a convincing rationale for new constructions which, built from imperishable materials, would tower above their surroundings, than it is to see such works as encapsulating the kind of antique revivalism encapsulated in that misleading term, 'Romanesque.'

CHAPTER TEN

EGYPT, LATER SYRIA AND SELJUK AND OTTOMAN TURKEY

Introduction

The cities of earlier Islam were enthusiastic consumers of marble, re-used in a restricted quantity of surviving buildings. But Cairo and Istanbul built proportionally many more buildings, and those on a much larger scale and with greater lavishness than previously. They are grouped here with Alexandria because her position on sea and river meant that she supplied marble to both, as she had done to earlier Europe, with whom (as with North Africa) her trading connections were many.¹ There is less emphasis on palaces (few survive from before the 16thC) and a greater focus on mosques and madrasas which could bulk large and magnificently within the cityscape. In consequence, marble became ever more sought-after and ever scarcer and more precious, leading to changes in the way such resources were re-used. For those with eyes to read, the prestige of a building could be judged by the sumptuousness and rarity of the materials it employed. During the building processes in the new Cairo, the ancient remains of Alexandria and parts of North Africa were plundered. For the resurgent Constantinople/Istanbul, all Ottoman territories were scoured, and documents show that they were plundered with bureaucratic efficiency. Western travellers were fascinated by the Ottoman Empire (including of course Egypt), and their accounts contain valuable details about the re-use of the past in various ways.² Moslems also travelled, storing up information about the wonders they saw so that they could themselves build as magnificently.³

¹ Schaube, *Handelsgeschichte*, paras 109–19, 128–38.

² Boucher de la Richarderie, B., *Bibliothèque universelle des voyages*, 5 vols, (Paris 1808):—exceedingly useful bibliographical collection, divided by destination, and giving details of what is discussed and visited: vols I & II for the Ottoman Empire. For a later period cf. Moussa, Sarga, *Le voyage en Egypte. Anthologie de voyageurs européens de Bonaparte à l'occupation anglaise*, (Paris 2004): 3ff. for Alexandria, 85ff. for Cairo.

³ Viguera, María J., ed., *Ibn Marzuq, El Musnad: hechos memorables de Abd al-Hasan, sultán*

Alexandria and marble for Cairo

Alexandria was an important port in Islamic times, in some eyes a great city comparable to Constantinople,⁴ and supplying old marble since late antiquity.⁵ It was surely the source of the majority of marble used by the Mamluks in Cairo⁶ and perhaps elsewhere in their domains (for they constructed some 2,279 projects between 1250 and 1517).⁷ It was still a source at the end of the 16th century.⁸ Given subsequent transformations to the city, travellers' accounts are essential to our understanding of mediaeval Alexandria,⁹ as is the fact that earthquakes and landslides had left substantial sections of the ancient city ruined.¹⁰ In consequence, the Islamic city was of much smaller area than the antique one, the ruins of which were available for spoliation,¹¹ which

de los Benimerines, (Madrid 1977), who lived c.1311–79. See 369: in a chapter “Sobre la magnificencia de su reino y la grandeza de sus miras”, notes that he completely rebuilt various cities, with mosques, baths, and “visto a muchos viajeros que han entrado allí, después de haber contemplado los edificios del Iraq, los de Egipto, Siria y las antiguas construcciones de al’Andalus y de Marrakus, y todos coincidían en que lo que allí había no existía en ningún otro lugar; y tienen razón.”

⁴ In the eyes of Hajji ‘Abd Allah (who returned after 13 years in Constantinople to his native Damascus in 1293): cf. Berger, A., “Sightseeing in Constantinople: Arab travellers, c.900–1300,” in *Macrides, Ruth, ed., *Travel in the Byzantine World* (Aldershot, 2002), 179–91.

⁵ Hautecoeur, *Mosquées du Caire*, 136–7: 715 the historian of the Patriarchs of Alexandria records the order “d’enlever des églises les colonnes et le marbre,” but provides no details.

⁶ Pensabene, Patrizio, *Repertorio d’arte dell’Egitto greco-romano, C.III: Elementi architettonici di Alessandria e di altri siti egiziani*, (Rome 1993), 181ff, for Alexandria as a source for Cairo.

⁷ Meinecke, Michael, *Die mamlukische Architektur in Ägypten und Syrien (648/1250 bis 923/1517)*, (Glückstadt 1992), II.VII–VIII: 915 in Cairo, 247 in Damascus, 235 in Aleppo, 150 in Jerusalem, and 96 in Mecca. There are also important works in Medina, Tripoli, Alexandria and Gaza—2279 in all, with substantial remains of 500, 217 of which are in Cairo.

⁸ *Descrittori Italiani dell’Egitto*, 460: Filippo Pigafetta (1533–1604) writes: “Al presente tutte le belle cose d’Alessandria portano al Cairo, come da poco tempo in qua si veggono assaissimi di questi lavori, et nelle case, et nelle moschee, essendo cresciuto il Cairo in tanta grandezza per le rovine di Alessandria...”

⁹ Combe, Etienne, “Alexandrie musulmane. Notes de topographie et d’histoire de la ville d’Alexandrie depuis la conquête arabe jusqu’à nos jours,” *Bulletin de la Société Royale de Géographie d’Egypte* 15 1927, 201–38 for a commented bibliography of travellers. Reitemeyer, Else, *Beschreibung Aegyptens im Mittelalter aus den geographischen Werken der Araber*, (Leipzig 1903), 194–118, 158–61; Al-Harawi, *Guide*, 114–17, for the city’s marvels.

¹⁰ Rodziewicz, Mieczysław, “Transformation of ancient Alexandria into a medieval city,” in Gayraud, Roland-Pierre, ed., *Colloque international d’archéologie islamique*, (Cairo 1998), 369–86.

¹¹ Butler, A.J., *The Arab Conquest of Egypt*, (London 1902), 387ff. for an estimate of what was still available in the 12th century.

continued into the 15th century and later.¹² Thus the 1000 hectares enclosed by the Roman walls shrank to some 300 hectares in the 9th-century, and these walls were of re-used blocks, described by Cyriacus as “eximiae urbus moenia, portasque ingentes, et vetustatum egregia plurima extra, intusque conspeximus...”¹³ First the canals to the Canopic branch of the Nile silted up, and then the Canopic branch itself,¹⁴ which cannot have made transport to Cairo easier. Alexandria was very rich in marble: according to Mas’udi (d.956), when Alexander built the city, he brought together workmen from all countries, made the foundations, and collected stone and marble. “Ships brought different kinds of marble and stone from Sicily, Ifrîqiya, Crete and the very ends of the Mediterranean, where that sea enters into Ocean. He also got marbles from Rhodes.”¹⁵ Mas’udi could well be correct about the sources of the marbles (was this common knowledge in Alexandria?)—but is probably wrong about the dating, for he seems to be relating the sources of marble in his own day. Ibn Hawqal admired in 977 what he saw there, the marble-paved streets, the beautifully polished coloured marble columns in her churches. He recognized the age of what he saw: “eloquent testimony of royalty and power, which proclaim her domination over other countries, her grandeur, and her glorious superiority... immense columns and all sorts of marble slabs, any one of which could be moved only by thousands of workmen, and which are hoisted between earth and sky at a height of 100 coudées, each block resting on column capitals. The whole is decorated with astonishing effects and prodigious colours. Such remains represent the past.”¹⁶ The city’s prestige was due in part to a vigorous Christian marble-working industry, imitating and reusing earlier elements.¹⁷ Already Al-Muqaddasi (born 945/6) noted that the city was a source of marble,¹⁸ so some of

¹² Dopp, P.-H., *L’Égypte au commencement du XV^e siècle d’après le Traité d’Emmanuel Piloti de Crête (1422)*, (Cairo 1950), 36: houses rich in marble are bought “pour aultre se non pour lever les beaulx labeurs de mabres et d’aultres euvres qui sont dedans, et lez envoient par mer avecques la cerme au Cayre.”

¹³ *Descrittori Italiani dell’Egitto*, 437.

¹⁴ Liebeschuetz, Wolf, “Late late antiquity in the cities of the Roman east,” *Mediterraneo Antico: economia, società, cultura*, III.1 2000, 57–75; 64.

¹⁵ Mas’udi: *Prairies*, II, para. 828.

¹⁶ Ibn Hawqal, *Configuration*, 148.

¹⁷ Rodziewicz, Mieczysław, “Opus sectile mosaics from Alexandria and Mareotis,” *Tesserae. Festschrift für Josef Engemann* (Jahrbuch für Antike und Christentum, Erg.-Bd. 18), (Münster 1991), 204–14.

¹⁸ Al-Muqaddasi, *Best divisions*, 166. This might be what he means when he writes, 172, that Egypt’s specialities include marble—i.e. recut.

these glories surely disappeared early, the columns from the Serapeum¹⁹ supposedly being used by the Governor in c.1167 as defences on the beach and in the water against marauding ships. Others lasted longer: in 1340 outside the castle was a “great building known as the Mosque of Solomon... of old this building had 300 marble columns”—but no longer.²⁰ Indeed, Thévenot notes in 1665 that Alexandria is so ruined that he had known several strangers ask where they were when they were right in the centre.²¹ Tall stories circulated about its marble, with Al-Suyuti saying the moon reflected so brightly from the walls and pavements of black marble that a tailor could thread a needle without a lamp, and Makrizi that the Serapeum was “a single block of green marble.”²²

Cairo was a new city, albeit with an adjacent older one a few kilometres south at Fustat,²³ the site of marble-rich churches the materials from at least one of which was sold to pay taxes.²⁴ Alexandria was a much-shrunken Hellenistic foundation, with a high-living nucleus surrounded by fields of ruins. It contained many marble capitals²⁵ and, also like Cairo, private houses retained plenty of marble in the 16th century, including some complete mosaic floors: “In the people’s dwellings you can see many pieces of marble and stone of different colours, cut in squares, circles, stars and other shapes which, with exceptional skill, the good people of ancient times employed to cover the floors and the walls of their houses; a really wonderful work as much for the

¹⁹ Al-Gharnati, *Voyage*, 56–8: “Une salle d’audience... Chaque colonne a un socle de marbre et est surmontée d’un chapiteau de la même pierre. Ils sont de griotte rouge piqué de blanc et de noir, comme du jaspé yéménite mais plus beau. La hauteur de chaque colonne est de vingt coudées pour une circonférence de huit... Cette salle est entourée de plus de trois cents colonnes monolithiques d’un même type.”

²⁰ Le Strange, G., *The geographical part of the Nuzhat-al-Qulub, composed by Mustawfi in 1340*, (Cambridge 1919), chap 21.

²¹ Thévenot, André, *Voyage*, (Paris 1664), chap 11, 228 for Alexandria.

²² Quoted in Butler, A.J., *The Arab Conquest of Egypt*, rev. ed. by Fraser, P.M., (Oxford 1978), 370, 387. James Harrell informs me that the black stone was Aswan granodiorite, never extensively used, and that the green “marble” would be metagraywacke from Wadi Hammamat, which takes a polish. The Serapeum is carved from limestone bedrock, so he suggests Makrizi might have meant sarcophagi. The conceit is a common one: cf. Al-Edrisi, *La géographie*, II 61, on the dome about the mihrab at Córdoba.

²³ Fu’ad, Sayyed & Gayraud, Roland-Pierre, “Fustat/Le Caire à l’époque fatimide,” in Garçin, *Grandes villes*, 135–56.

²⁴ Lombard, Maurice, *Les métaux dans l’ancien monde du V^e au XI^e siècle*, (Paris 1974), 198: by Michael I (881–899?) to pay taxes demanded by Ibn Tulun.

²⁵ Kautzsch, Rudolf, *Kapitellstudien: Beiträge zu einer Geschichte des spätantiken Kapitells im Osten vom Vierten bis ins Siebente Jahrhundert*, (Berlin 1936), 24ff. Unfortunately, the book does not deal with Venice, Kairouan, Tunis, or Mahdiya.

shaping and fitting together of those well-cut stones as for their quality and excellence, and the diversity of their colours; there are some houses there in which such construction remains intact...²⁶—though of course they might have been in one of the many later reincarnations known to be common with such Lego-like pavements.²⁷

Such “shaping and fitting together” is probably a spinoff from the ever-increasing shortage of prestigious marbles, which Ibn Khaldun builds into his rise-and-fall cycle: “which are taken from empty buildings, from fortresses and palaces disused because their towns are depopulated. The very same materials are perpetually re-used, from palace to palace, from house to house, until they are completely gone.”²⁸ This can be seen in the enormous portal to the Mosque of Sultan Hassan, where Rogers has found fixing markers for attaching thin marble veneers which—he points out—are a very different matter from the stylistic source, such as the Gok Madrasa, where the marble panels are six inches thick and must have been carved before erection.²⁹ So if the use of ever-smaller and more intricate fragments is a style in Cairene and Syrian buildings, it is conceivably one much influenced by circumstance, and perhaps in part by the example of Roman marble floors available in Egypt.³⁰ For what follows, it is important to underline that there is no direct evidence of any marble quarrying in Mamluk lands, and evidence for the quarrying only of white marbles by the Ottomans. Indeed, Ottoman Istanbul after Mamluk Cairo (or Damascus, or Aleppo) is notable for the sobriety of its marbles, and the scarcity of colour except in the use of roundels or rectangles cut from porphyry sarcophagi, signalling a change of taste, rather than the complete unavailability of coloured decorative marbles to the Sultan.

²⁶ Curatola, Giovanni, “Venetian merchants and travellers in Alexandria,” in Hirst, Anthony, & Silk, Michael, eds., *Alexandria, real and imagined*, (Aldershot 2004), 185–98; 196–7 for Filippo Pigafetta’s description from his *Viaggio* of 1576–7.

²⁷ Guidobaldi, F. & A.G., *Pavimenti marmorei di Roma dal IV al IX secolo*, (Città del Vaticano 1983), 518ff. for widely applicable discussion.

²⁸ Monteil, V., ed., *Discours sur l’Histoire Universelle*, 3 vols, (Beirut 1967–8): II.10, 745.

²⁹ Rogers, J.M., “Seljuk influence on the monuments of Cairo,” *Kunst des Orients* VII.1 1970/1, 40–68; see 50.

³⁰ Daszewski, Wiktor A., “Die Fussboden-Dekoration in Häusern und Palästen des griechisch-römischen Aegypten,” in Papenfuss, Dietrich, & Strocka, Volker Michael, *Palast und Hütte. Beiträge zum Bauen und Wohnen im Altertum von Archäologen, Vor- und Frühgeschichtlern*, (Mainz 1982), 396–411; figs 16–17 for opus sectile floors from Kom Truga (W Nile Delta) and Alexandria (Kom el-Dikka).

The Coptic Church and marble

The Copts built some large churches and monasteries throughout Egypt, with granite, marble and limestone, frequently re-used, and some of it of course from Pharaonic monuments. The Christian takeover of pagan monuments was extensive, and apparently painless.³¹ At the 7th-century Saqqara Monastery of S. Jeremiah, dug 1906–10, and uncovered from the sand, several of the granite monoliths (from the initial 18), are still on site, and more are in the Coptic Museum. A Ptolemaic temple was reoccupied for the 66-metre-long Basilica at Hermopolis (el-Ashmounein, near Mallawi, built perhaps 410/440). The site is a good distance from the river, and its 5-metre columns (44 in all) were probably too large to think of moving. In contrast, the mid-5th-century White Monastery (Deir El-Abiad, Deir Anba Shenouda, and so-called because of the limestone of the walls), can call only on stumps for its nave, some of which are jointed, others indeed of brick, to join the Pharaonic fragments. Much more splendid was Abu Mena (S. Menas), in the desert between Cairo and Alexandria, a pilgrimage centre well before its late-5th-century rebuild, and then refurbishment in the time of Justinian, conceivably by architects from Constantinople.³² The church was 75 metres long including the narthex, had polychrome marbles covering its limestone walls, and capitals with two registers of acanthus on marble shafts. After a fire in the 7th century, and some refurbishment in the next, we may perhaps assume that its marble went, like so much of Alexandria, toward the beautification of Cairo.

In Nubia, any monumental churches used granite rather than marble, even for their capitals. At Qasr Ibrim, for example, the Cathedral is built entirely of stone, and has crosses on the 12 red granite columns, topped with grey granite capitals. When the fortress was captured by Shams ed Daulah in 1173, the church became a mosque. At Dongola, the Polish team uncovered a monumental (29.5 by 24m) church with 16 grey granite columns, 5.2m high, of which 12 are still intact, all with Maltese cross. They date the construction to the early 8th or even late 7thC, and affirm that the granite came from the quarries at the Third Cataract, without indicating they are in re-use. Indeed, the

³¹ Bagnall, Roger S., *Egypt in late antiquity*, (Princeton 1993); 260–8 for Temples in Trouble—degradation of pagan religion, “with its physical base in an advanced state of decay.”

³² Capuani, Massimo, *L’Egypte copte*, (Milan 1999), 109–12, 152–3, 177–82, and 24–30.

columns are supported on elongated bases of different heights, which would surely suggest that the columns are made-to-fit, were it not for their spindly crudity—so were these columns quarried for the church? There are small Roman settlements this far south, but no quarries are marked on the standard maps. The church's builders did use antiquities, taking a slab of granite with a cartouche of Tajarqa for use as an altar table. But perhaps materials were imported, because this was a prestige settlement and, if the excavators are correct, the structure with Christian fresco fragments under the plaster was a Royal Palace—and a suitable place to turn into a mosque in 1317, according to the Arabic inscription.³³

At the northern end of the Nile, near the delta at Wadi Natrun, the Great Church of S. Macarius boasted some 20 marble columns as late as the 18thC (fragments of which lie around in the courtyard), but became ruinous as the number of monks declined. White compares a fragmentary two sided marble slab transenna still in the monastery with a slab in the tomb mosque of Qaytbay, in Cairo, which he suggests was recut to disguise the original central motif of a cross—so that the conclusion might be that this monastery was plundered for marble for the tomb, perhaps from the c.850 rebuild after the sack of c.817.³⁴ Not that crosses protected churches from spoliation.³⁵

Old marble had also beautified churches in Fustat long before the Islamic conquest, and would continue to do so, although some was extracted by the Muslims,³⁶ the cheapest trick being stealing marble shafts in the middle of the night and replacing them with wooden posts.³⁷ But in comparison with the churches and monasteries exam-

³³ Dinkler, Erich, ed., *Kunst und Geschichte Nubiens in christlicher Zeit*, (Recklinghausen 1970), 129ff. & figs 73–7: for Qasr Ibrim; 163ff. and figs 130, 134–5 for Dongola; 165 & fig. 141 for the Royal Palace.

³⁴ White, Hugh G. Evelyn, *The monasteries of the Wadi 'N Natrun, III, the architecture and archaeology*, (New York 1933), 84ff. and 88–9 & figs XVb & XCIIa for the slab compared with that in Qait Bey.

³⁵ Evetts, *Churches and monasteries of Egypt*, 174 on W. bank of Nile, in province of Al-Jizah, the church of the martyr Victor was ruined and restored; “then Fakhr ad-Din, the wali of Misr, known as Ghulam al-Baniyasi, carried off eighteen pillars, marked with the sign of the cross, and he built with them an inn and other houses for himself.”

³⁶ Evetts, *Churches and monasteries of Egypt*, in the early 13thC, 105 in the great Church of S. Menas (between Fustat and Cairo: gone; not to be confused with Deir Anu Mina) “there is an ambon of coloured marble, the greater part of which is red and transparent; it is supported by marble pillars, of skilled workmanship.”

³⁷ Jarrar, Sabri, “Al-Maqrizi's reinvention of Egyptian historiography through architectural history,” in Behrens-Abouseif, Doris, ed., *The Cairo heritage: essays in honor of Laila*

ined above these were uniformly small, if richly decorated. Because of dilapidations, fires and rebuildings down the centuries, it is difficult today to gauge their effect, except by visiting the (originally late 6th-century?) Al-Muallaqa Church in its apparently 11th-century rebuilding using earlier elements. This has re-used columns, a very rich marble pulpit supported on thirteen columns and decorated with marble veneer panels and also Cosmati-like mosaic. By this date the cross-fertilization between Islamic and Christian is clear, also seen in the pulpit (strip-veneering of the body and base, and a pseudo-muqarnas parapet) but better still in the entrance vestibule.

Cairo/Fustat

Cairo, still surrounded by her walls and spectacular gates, is today the most splendid city in the Islamic world. From her foundation in 969, she outshone all Western cities in size and splendour and, before the rise of various of the Delhis, all Muslim ones except Baghdad (Córdoba was much smaller). The most prestigious buildings were the work of the sultans and their emirs, but civilians also erected many fine buildings, buying or (mis-)appropriating marble just like their superiors.³⁸ Nasir-i Khusrau (in one of many admiring travellers' accounts)³⁹ counted 15 congregational mosques in Fustat and Cairo in 1047, remarking that the Mosque of Amr had its entire qibla wall covered in marble veneer, and the complete Koran written upon it.⁴⁰

There was of course no need to dismantle old buildings in order to construct new ones, since the Muqattam Hills overlook the city. These provided the limestone for the Pyramids, so we might assume that the story of the dismantling by Hassan (d.1361) of part of the Pyramids' facings for his mosque/madrassa was as much a part of the powerplay as its construction facing the Citadel. For using marble in Cairo was just as time-consuming as elsewhere and, for Bierman, demonstrated

Ali Ibrahim, (Cairo 2000), 31–53; see Khitat 2:320 for Abu Bakr al-Khazin's theft in 961 for a mosque at Gizeh. Was it here that a 10th-century casuist refused to pray because its columns were taken from a church? Cf. Hauteceur, *Mosquées du Caire*, 136–7.

³⁸ Martel-Thoumian, Bernadette, *Les civils et l'administration dans l'état militaire mamluk (IX/XV^e siècle)*, (Damascus 1991), 391–422 for plentiful details.

³⁹ Reitemyer, *Beschreibung Aegyptens*, 185–238.

⁴⁰ Nasir-i Khusrau, *Travels*, 52. *Al-Gharnati*, *Voyage*, 59 confirms the veneer, but says that the Koran was inscribed on the maqsura.

inventiveness, because of the work involved in adjusting column-heights and load-bearing capacities—a much harder task than using new, standard members.⁴¹

Cairo once sheltered both religious monuments and palace complexes, although the latter have largely faded away, so that to grasp the likely richness of such structures we should turn to Algeria.⁴² It also appears to have led the way in the varieties of marble displayed,⁴³ and many monuments, such as Al-Azhar, are rich in old shafts and capitals, which one author suggests could have come from Alexandria, S. Menas,⁴⁴ Fustat, Saqqara, Ahnas and Ashmounein.⁴⁵ However, except for the use of some large granite columns, there seems to have been no concerted attempt to capitalize on the Heliopolis monuments, and when these were re-used it was for convenience—as with the large inscription of Sesostris I re-used in the Bab Al-Tawfiq and the Bab Al-Nasir.⁴⁶ Early Fatimid palaces in Cairo have been replaced by Mamluk ones,⁴⁷ which certainly re-used their marble and wood.⁴⁸ Al-Nasir Muhammad took granite columns for his mosque on the citadel—so some specimens might have been re-used at least twice. Wood was also re-used: figured planks from the Western Fatimid Palace (which survive in the Islamic Museum in Cairo) were re-used reversed in the Mausoleum of Qalaun

⁴¹ Bierman, “Art and architecture in the medieval period,” 357.

⁴² dvd_fatimid_algeria.doc.

⁴³ Lazzarini, *Pietre e marmi antichi*: Cairo has sienite in primary use, and all the following in secondary use: Egyptian diorite, alabastro cotognino, granito verde della Sedia, granito del foro, red porphyry, alabastro a pecorella, granito violetto, marmo misio, africano, breccia corallina, cipollino rosso, occhio di pavone, green porphyry, rosso antico, marmor lesbium, fior di pesco, cipollino verde and bianco e nero antico.

⁴⁴ Imperial building by architects from Constantinople, with marble veneers, shafts and capitals, mostly in ruins by 8thC: cf. Capuani, Massimo, *L’Egypte copte*, (Milan 1999), 24–30.

⁴⁵ Barrucand, Marianne, “Les chapiteaux de remploi de la Mosquée al-Azhar et l’émergence d’un type de chapiteau médiéval en Égypte,” *Annales Islamologiques* 36 2002, 37–55; see fig. 35 for plan of the whole mosque with the 166 capitals covered. Meinecke-Berg, Viktoria, “Spolien in der mittelalterlichen Architektur von Kairo,” *Ägypten—Dauer und Wandel*, DAI Cairo Sonderschrift XVIII, (Mainz 1985), 153–9.

⁴⁶ Postel, Lilian, & Régen, Isabelle, “Annales héliopolitaines et fragments de Sésostris I réemployés dans la porte de Bab al-Tawfiq au Caire,” *BIFAO* 105 2005, 229–93; 230–1 for reuse of Pharaonic material in Cairo.

⁴⁷ Meinecke, *Die mamlukische Architektur*, 25–6 for reuse; 202ff. for impact of Mamluk decoration outside Egypt.

⁴⁸ Also a popular item to loot: Evetts, *Churches and monasteries of Egypt*, 147: at Melkite Monastery of Al-Kusair in 1010 (under Al-Hakim) the monastery was destroyed, “and a band of the common people came here, and seized the coffins of the dead, and the timbers from the ruins.”

(1284–5) on the same site. This was done for religious propriety, but the decorated marble slab re-used in the Khanqah of Baybars Al-Jashankir (1303) was cut down from a larger piece, suggesting that this splendid design was consigned to life as a paving slab in a form of *damnatio memoriae*. The very action of dismantling a predecessor's work had a similar effect: Qalaun “removed from Qa'lat Al-Roda granite and marble columns, which had already been re-used from Pharaonic remains. He also took much marble and many fine lintels which were, again, re-used from Pharaonic times.”⁴⁹ Qalaun's architecture was intended to impress, and it does so, not only by the inventiveness of his architectural devices, but also by the massive granite shafts in his mausoleum, and its lavish marble decoration. The diploma issued to the appointee to the chair of medicine at his hospital, in a decided departure from the usual conventional and ultra-sober piety of such documents, stated that this was intended to “dazzle the eyes.” But pious people would not pray in his mosque because of its suspicious financing,⁵⁰ Makrizi noting a cache of treasure was found while digging the foundations, which miraculously equalled the cost of construction.⁵¹

The later structures (such as the Bashtak Palace, 1334–9, with marble floors and monolithic columns) have survived thanks to the centuries of Ottoman stagnation, and the happy fact that 19th-century urban improvements took place well outside the monumental centre.⁵² From Zakarya's work in the National Archives (in the Citadel) we find how carefully buildings could be catalogued. In an act of sale by Sultan Qaytbay in 1484, marble (sometimes coloured) for floors and walls is specified, plus granite lintels and thresholds, and banded decoration

⁴⁹ MacKenzie, Neil D., *Ayyubid Cairo: a topographical study*, (Cairo 1992), 75.

⁵⁰ Cf. *Ibn Ilyas, Journal*, I.49: in 1502 Malik Ashraf acquired a part-built college, didn't like it, had it demolished and made it larger. “Le nouvel édifice fut richement décoré et garni de marbres à profusion: ce fut une construction splendide, d'une somptueuse élégance, auquel on ne peut comparer aucun monument contemporain. Pourtant on reprocha généralement au sultan de l'avoir érigé à l'aide de confiscations illicites, sans compter que la plus grande partie des marbres avaient été empruntés à d'autres édifices et acheté à des prix ridicules. C'est ainsi que le pavillon du changeur israélite Samuel avait été démoli pour en arracher les marbres et les portes, et on avait fait subir le même sort à bien d'autres pavillons. Aussi un homme d'esprit avait-il surnommé ce collège la “mosquée interdite” [play on haram = *sacred* but also *forbidden*].

⁵¹ Northrup, Linda S., *From slave to sultan. The career of al-Mansur Qalawun and the consolidation of Mamluk rule in Egypt and Syria (1279–1290)*, (Stuttgart 1998), 120–2.

⁵² For a survey, cf. Meinecke, Michael, ed., *Islamic Cairo: architectural conservation and urban development of the historic centre*, (Cairo 1978).

in red and white stone (ablaaq). Such “stripey” masonry might possibly derive from the Byzantine practice of alternating courses of stone and brick, but is probably older: the south wall of the Hellenistic fortifications of Erythrae (near Izmir) display courses of red trachyte and white limestone used for decorative effect. Stalactitic work is mentioned presumably because it indicated skill and added value.⁵³ Rabbat notes that Al-Nasir Muhammad had Christian marble-cutters brought from Damascus, the site of an earlier Qasr Al-Ablaq, to work on the eponymous structure in the Cairo Citadel (1313–14).⁵⁴

Like Kairouan, Fustat-Cairo was a new city, replacing a long-dead Memphis as Kairouan had outdistanced a still-functioning Carthage.⁵⁵ There were no space or over-building problems, and Coptic churches rich in marble, some of which were probably spoliated. Mosques and palaces, some of them very splendid,⁵⁶ were built first at Fustat (the first settlement with the Mosque of Amr, 640/1),⁵⁷ and houses were provided with plentiful marble columns, and courtyards with fountains.⁵⁸ The Mosque of Amr has been dilapidated and rebuilt⁵⁹ so that it is difficult to know its original fittings; but polychrome marble panelling and mosaics were apparently visible until 997.⁶⁰ Al-Muqaddasi notes its marble

⁵³ Zakarya, Mona, *Deux palais du Caire médiéval: waqfs et architecture*, (Paris 1983), 9ff: this is the Shihab al-Din Palace at Birkat al-Fahhadin; 49ff. for the Palace of Emir Djanin in the Khatt de Suwayqat al-Izzi, which has granite columns, polychrome marbles, a fountain, and important rooms walled and floored with marble. 42: the author notes marble used only on the ground floor, and in two specific ensembles.

⁵⁴ Rabbat, Nasser O., *The Citadel of Cairo. A new interpretation of royal Mamluk architecture*, (Leiden 1995), 200.

⁵⁵ Liebeschuetz, “Late late antiquity,” 70.

⁵⁶ Reitemeyer, *Beschreibung Aegyptens*, 162–84.

⁵⁷ Golvin, Lucien, *Essai sur l'architecture religieuse musulmane*, 3, *L'Architecture religieuse des grands Abbāsides, la mosquée de Ibn Tūlūn, l'architecture religieuse des Aghlabides*, (Paris 1974), 59ff. for the chronology of this mosque.

⁵⁸ Kubiak, Władysław, *Al-Fustāt, its foundation and early urban development*, (Cairo 1987), 126; 127: the mosques were at first supported by palm trunks, later replaced by marble columns.

⁵⁹ Indeed, enlarged five times. For Cairo before the Comité began restoration work, cf. Charmes, Gabriel, *Cinq mois au Caire et dans la basse Egypte*, (Paris 2nd ed., 1880), 120ff: Mosque of Amr; 123ff: Ibn Tulun; 127ff. Sultan Hasan—which he says is in a very bad state.

⁶⁰ Flood, Finbarr Barry, *The Great Mosque of Damascus: studies on the makings of an Umayyad visual culture*, (Leiden 2001), 19: it had been rebuilt by al-Walid's governor (Qurra b. Sharik) in 710–12. Fustat was supposedly methodically destroyed in 1168–9 for fear the Crusaders would use it as a base to attack Cairo—but presumably this affected mainly its walls.

columns, and that it is bigger than Damascus.⁶¹ A four-metre column survives in Cairo's Military Museum; perhaps from some portico, but this might equally be from the octagon in the courtyard that Browne reported in the late 18th century, supported on tall columns.⁶²

A table of some of the materials used in significant quantities in selected monuments will frame the ensuing discussion:⁶³

<i>Date</i>	<i>Monument</i>	<i>Marble</i>	<i>Usage</i>	<i>Locations</i>
827ff.	Amr	P 114 × 132	columns	QI
876–9		P	floor slabs	QI
970ff.	Al-Azhar	P	columns	courtyard, QI
1125	Al-Aqmar	P	columns	courtyard, QI
1160	Salih Tala'i	P	columns	courtyard, QI
1284–5	Qalaun complex	AG × 8	columns	mausoleum courtyard
1284–5	Qalaun complex	AG × 4; P × 50	columns	mausoleum interior
1284–5	Qalaun complex	P	wall panels	mausoleum interior
	Qalaun complex	AG × 6; P × 2	columns	madrassa QI
1306–10	Baybars Al-J	mostly P	walls & floor	mausoleum
1314	Qasr Al-Ablaq	Verde antico etc	walls	palace
1314	Qasr Al-Ablaq	AG	columns	palace
1318–35	Al-Nasir	AG × 26; P × 28,	columns	courtyard & QI
1318–35	Al-Nasir	Breccia r & w	wall panels	all walls?
1329–30	Amir Ulmas	AG × 4; P × 24	columns	courtyard + iwans
1339–40	Altinbugha	AG × 15; P × 11	columns	courtyard & QI

Legend: P = proconnesian; AG = Aswan granite; QI = qibla iwan

Notes (with Harrell's catalogue numbers): (1) the AG columns in Altinbugha are identical to those in the Madrasa of Qalaun, and certainly come from late Old Kingdom temples; (2) buildings with a great variety of coloured stones include #123: Funerary complex of Aqsunqur (1346–7 AD); #138: Mosque of Mangak Al-Yusufi [a.k.a. Al-Sihahdar] (1349); #218: Madrasa/Mausoleum of Amir Sarghatmish (1356); #133: Mosque/Madrassa/Mausoleum of Sultan Hasan (1356–63—which is

⁶¹ Al-Muqaddasi, *Best divisions*, 168.

⁶² Browne, William George, *Travels in Africa, Egypt and Syria, from the year 1792 to 1798*, (London 1799), 79.

⁶³ Details taken from Harrell, *Ornamental Stones*. Cf. his text for caveats, exact details, diagrams, etc.

perhaps too lofty to make use of old columns?). The use of decorative marbles continued under the Circassian Mamluks (1382ff.)—e.g. #187: Madrasa/Khanqah and Mausoleum of Sultan Al-Zahir Barquq (1384–6) and #35: Mosque of Gamal Al-Din Al-Ustadar (1408), especially #190: Funerary complex of Sultan Al-Muaiyad (1415–22), for which diagrams are provided of the north and south wall-panels, and finally #175: Funerary complex of Sultan Al-Ashraf Barsbay (1425)—although the list could be much extended. For diagrams indicating how coloured marbles were disposed, cf. Harrell, *Ornamental stones*, Circassian Mamluk period, #203: Zawiya/Sabil of Al-Nasr Farag Ibn Barquq (1408) and its associated diagrams.

As already mentioned, Cairo's local model in rivalry and marble use was Fustat, the first capital of Islamic Egypt, and renowned for its rich houses and mosques. Here Ibn Tulun built his great mosque. In one account that pious man is said to have eschewed marble columns because he would have had to strip churches to provide the number he needed.⁶⁴ In another the cost of the mosque is said to have been paid by Ibn Tulun's discovery of over 4,000kg of Pharaonic gold.⁶⁵ The Mosque of Amr, in spite of a large complement of marble monoliths, had not completely denuded the area, for plenty of marble is still to be seen in the churches of Fustat, as we have seen. That settlement's luxury⁶⁶ was soon echoed to the north, where the Fatimid palaces were so large that Saladin (who had an austere streak) threw out 12000 inhabitants.⁶⁷ In standard fashion, they were then used as quarries for building materials, such that a doorkeeper supposedly remarked that "he had seen no wood brought in, and no rubbish thrown out, for a long time"—the panelling used for firewood.⁶⁸ Makrizi also relates that after the fire of 1168 Saladin had the Mosque of Amr refurbished: "He cleaned its columns and restored its marble until the entire mosque was covered

⁶⁴ *Sayyid, Ayman Fu'ad, *La capitale de l'Égypte jusqu'à l'époque fatimide Al-Qahira et Al-Fustat: essai de reconstitution topographique*, (Stuttgart 1998), 50; the other story is that he built in brick because he feared fire.

⁶⁵ El Daly, Okasha, *Egyptology: the missing millennium. Ancient Egypt in medieval Arabic writings*, (London 2005), 34.

⁶⁶ Monneret de Villard, Ugo, *Introduzione allo studio dell'archeologia islamica*, (Venice 1966), 239 for a palace built at Fustat for al-Mausil by the prefect al-Hurr ibn Yusuf (died 745) called al-Manqusa, richly decorated with marbles and coloured stones.

⁶⁷ Ibid., 232ff.

⁶⁸ Staffa, Susan Jane, *Conquest and fusion: the social evolution of Cairo AD 642–1850*, (Leiden 1977), 83ff., including Saladin's modest house.

with marble; there was nothing in its entire area uncovered by marble.”⁶⁹ Further down the scale, house transfer deeds occasionally describe what is being sold or deeded, via listings. One Geniza document describes the housing compound of a well-to-do family: “hallway, paved with marble... One reception room is long; its walls are of marble... The second reception hall... marble in different colours... The court of the ground floor is crowned by a cornice of carved gypsum.”⁷⁰ Again, a legal settlement document dated c.1190: the house has marble on the floors and the walls, as well as a marble bathroom with a stucco dome.⁷¹ Today we can see such decoration only on the walls of religious buildings, but the Islamic Museum boasts a 14th-century marble fountain demonstrating that similar designs also decorated floors. Wood might sometimes have been burned, but marble columns fetched a high price, as a Geniza document of 1040 tells us.⁷²

Saladin was an exception among rulers, and confined his own monuments to military ones, which he did not hesitate to dignify with marble inscriptions. Indeed, Cairo is a city of inscriptions, and in some of them marble joins meaning in the happiest of decorative motifs.⁷³ Indeed, one might wonder whether the city’s example provided a fillip to large inscriptions in Europe.⁷⁴ Many Mamluk rulers were less ascetic, and viewed architectural magnificence as an important element in their grand state, a disposition which contributed to the startling quality and density of the city’s monumentality, some of which has clear

⁶⁹ MacKenzie, *Ayyubid Cairo*, 131.

⁷⁰ Goitein, S.D., “Urban housing in Fatimid and Ayyubid times (as illustrated by the Cairo Geniza documents),” *Studia Islamica* 47 (1978), 5–23; 18: the author comments, 18, that “The stucco work, we remember, like the marble and the wood, could be removed and, therefore, had to be listed.”

⁷¹ Goitein, S.D., “A mansion in Fustat: A twelfth-century description of a domestic compound in the ancient capital of Egypt,” in Miskimin, Harry A., Herlihy, David, & Udovitch, Abraham L., eds., *The medieval city*, (New Haven CT 1977), 163–178.

⁷² Ashtor, Eliyahu, *Histoire des prix et des salaires dans l’orient médiéval*, (Paris 1969), 183: 17 columns including bases and capitals, for a Fustat synagogue, cost 58.75 dinars, and one large white column cost 11.75 dinars.

⁷³ Blair, Sheila, *Islamic inscriptions*, (Edinburgh 1998), fig. 7.40 for square kufic marble mosaic panel from mausoleum of Qalaun, which spells out “Muhammad” four times at the top, four times below.

⁷⁴ Such as that on the Duomo at Foligno recording the famine of 1133: Claussen, Peter C., “Früher Künstlerstolz. Mittelalterliche Signaturen als Quelle der Kunstsoziologie,” in Clausberg, Karl, et al., eds., *Bauwerk und Bildwerk im Hochmittelalter*, (Giessen 1981), 7–34; see 10–11. The ablaq masonry and diamond diapering above increases the likelihood.

stylistic connections with Islamic Sicily,⁷⁵ just as other works (such as the portal of the Mosque of Hassan) are inspired by the Seljuks, themselves fascinated by marble-working.⁷⁶ The main characteristic of this monumentality is a propensity for large structures, marked by superb stonework entrances, often exhibiting intricate stone-cutting in marble and other hard stones. Many rulers ignored the “ubi sunt?” theme which contemplation of the nearby Pyramids afforded to some contemporaries⁷⁷ and, in the course of the 13th century, marble decoration entered a vogue that would last for centuries.⁷⁸ But some rulers were exceptional, the greatest perhaps Al-Nasir Muhammad ibn Qalaun, who ruled 1293–4, 1298–1308 and again 1309–40—32 years in all, and much longer than any other Mamluk. Al-Nasir’s New Mosque and the famous Qasr Al-Ablaq (remains of the main room of which were still standing at the beginning of the 19th century) have gone except for a few granite columns. This complex, many of the materials of which were consumed by the nearby Mosque of Muhammad Ali, had rooms paved in multi-coloured marbles of great beauty, and mosaics of trees and houses above marble-veneered walls decorated with shell and mother-of-pearl.⁷⁹ Similar decoration was seen in Damascus’ houses as well, where less but better marble was used than in Cairo.⁸⁰ Carlier de Pinon notes that the great Diwan of this palace had 32 granite columns, monolithic, 8m high without capital, and with a girth

⁷⁵ Behrens-Abouseif, “Sicily, the missing link in the evolution of Cairene Architecture,” 287ff. for adopted characteristics, and 292ff. for the problem of sourcing the workmen, c.75 years after the fall of the Normans.

⁷⁶ Rogers, “Seljuk influence,” 40–68; see 68: “Anatolia, after the fall of the Seljuks and in the disorders of the mid-fourteenth century, continued to exercise a cultural attraction upon the countries of the Middle East.”

⁷⁷ Haarmann, Ulrich. “In quest of the spectacular: noble and learned visitors to the Pyramids around 1200 AD,” in Hallaq, Wael B., and Little, Donald P., eds., *Islamic studies presented to Charles J. Adams*, (Leiden 1991), 57–67; see 58; 60: under the vizierate of Tala’i b. Ruzzik (died 1161) a man fell to his death from the pyramid of Khephren “which, by virtue of its largely intact granite [sic] cover, turned out to be practically unconquerable.”

⁷⁸ *Bierman, Irene A., “Art and architecture in the medieval period,” in Petry, Carl F., ed., *The Cambridge history of Egypt*, (Cambridge 1998), 338–74; see 361, dates first use of of marble for floor and lining mihrab to mausoleum of al-Salih Najm al-Din Ayyub 1250.

⁷⁹ Gaudefroy-Demombynes, *La Syrie à l’époque des Mamelouks*, 36. Lézine, Alexandre, “Les salles nobles des palais mamelouks,” *Annales Islamologiques* X 1972, 63–148; see 68–72.

⁸⁰ Gaudefroy-Demombynes, *La Syrie à l’époque des Mamelouks*, 35.

such that three people linking hands could not encompass them.⁸¹ Compared with the pale reflections of this palace elsewhere in Cairo, visitors' descriptions from the Crusades onwards make it shine the more brightly. Pierre Belon describes the marble-clad walls, decorated with mother-of-pearl⁸² that William of Tyre had already described in 1168.⁸³ So lavish was the Citadel that the complex was called "multicoloured," presumably because of its marbles. It was described in the 15th century by Khalil az-Zahiri: "no equal in area, splendor, magnificence, and height...three main buildings used for official ceremonies. These are inlaid with marble of different colors. The Great Hall has no equal in the world...surmounted by a very high, beautiful, green dome...supported on marble columns..."⁸⁴

So famous was the Citadel, partly for "the beautiful remains of antiquity that are to be found therein," that the Turks charged one ducat to visitors in the 1670s.⁸⁵ Many of the results of Al-Nasir Muhammad's renovation of the city after the earthquake of 1303 remain, including his mosque in the citadel (partly decorated Iran-like with faience tiles); and "his third reign was one of the most important architectural periods in Cairo's history...the architecturally splendid City of the Dead grew up to the east of old Cairo." Some columns from the Qasr Al-Ablaq went to Barquq's complex "via the Qalat Al-Rawda, the palace of the 13thC Ayyubid sultan, Al-Malik Al-Salih, the ruins of which long remained a useful quarry for Mamluk builders."⁸⁶ Even in Al-Harawi's

⁸¹ Blochet, E., "Relation du voyage en Orient de Carlier de Pinon (1579)," *Revue de l'Orient Latin* XII 1911, 327–421; see 414–15. Lézine, "Les salles nobles," 66–8: there appear to have been 28 columns in the central area, and Pauty states 94 columns "en dehors des peristyles." But the height of the columns is not given. Brèves, M. de, *Relation des voyages de M. de Brèves, tant en Grèce, Terre-Sainte et Egypte, qu'aux royaumes de Tunis & Argel*, (Paris 1628), 266 notes "thirty five or forty columns of mixed marble, grey, red and white...bases and capitals of white marble."

⁸² Belon, Pierre, *Voyage en Egypte de Pierre Belon du Mans*, (Paris 1547), 107v.

⁸³ Familiar with both Rome and Constantinople, William describes the palace as follows: "deambulatoria inveniunt, columnis subnixa marmoreis, auratis laquearibus et prominentibus celata operibus, pavimento strata vario, ita ut omni suo ambitu, regiam praetenderant dignitatem; quibus tanta inerat materiae et operis elegantia, ut transeuntium etiam invitos detinerent oculos, et quadam videndi aviditate, invitante operum eximia novitate, intuentium aspectus non sinnerent satiari;" *Hist. Rerum Transmarin.*, J.-P. Migne, PL CCI, XIX.17, cols 763–4.

⁸⁴ Staffa, *Conquest and fusion*, 107.

⁸⁵ Le Brun, Corneille, *Voyage au Levant*, (Delft 1700), 217.

⁸⁶ Irwin, Robert, *The Middle East in the Middle Ages: the early Mamluk sultanate, 1250–1382*, (London 1986), 117. He and his emir responsible for architecture "took a hand in providing materials and designs for the mosques of favoured emirs—particularly of the sultan's sons-in-law."

day (d.1215), large quantities of granite were available there, including what his editor believes was a monolithic chapel.⁸⁷ But this taste for gigantism apparently did not stretch to importing from Alexandria, where six-metre monoliths were still standing outside the Attarine Mosque in the early 19th century. Barquq's mosque has its qibla wall, sumptuous with marble inlay, framed by the enormous granite columns from the Citadel, while his adjacent mausoleum makes its effect with the low marble cenotaph on the marble floor, the great dome above, and the rich veneers clothing the walls.

The dismantle-and-rebuild tradition continued for centuries in Cairo houses and mosques—luckily so, because from them we get hints of what the Citadel looked like in its glory. Al-Nasir Muhammad not only had large columns brought for his palace from Upper Egypt,⁸⁸ but built his forest-of-columns mosque within the Citadel in 1315–18, obviously collected from a variety of sites. By this date matched monoliths were out of the question, and Roman and Byzantine marble columns and capitals are nearly all too short for the courtyard arcades (although plenty were available from Egyptian contexts.⁸⁹ So they are hoisted skywards on bases, plinths and associated additional blocks (one is indeed an upturned Byzantine impost block) sometimes over a metre in height. The tallest columns are the sturdy Pharaonic⁹⁰ ones flanking the mihrab, all without bases, and all of differing heights, those supporting the sides of the nave-with-dome being well over five metres. These surely came from Memphis, and “their vast dimensions encouraged the tale that they had been transported thither by djinns.”⁹¹ The restored mihrab, rich in coloured and white marble, mother-of-pearl, and mosaic, gives some idea of what the wall revêtement must have

⁸⁷ Al-Harawi, *Guide*, 97–8: 97–8 “the green chamber was at the middle of the White Palace, built in marble, and contained enormous idols”—“palace” being a common term for antique structures; and Al-Harawi mistakes granite for marble.

⁸⁸ Casanova, P., *Histoire et description de la Citadelle du Caire*, (Cairo 1894), 664–5, after Makrizi.

⁸⁹ Pensabene, *Repertorio d'arte dell'Egitto greco-romano*, cats 655–87.

⁹⁰ Pharaonic blocks were also used as building materials, but there is little evidence of any engagement with meaning: cf. Heiden Désirée, “Pharaonische Baumaterialien in der mittelalterlichen Stadtbefestigung von Kairo,” *Mitt DAI Cairo* 58 2002, 257–75; Flood, F. Barry, “Image against nature: spolia as apotropaia in Byzantium and the Dar al-Islam,” *The Medieval History Journal* 9 2006, 143–166.

⁹¹ Rogers, Michael, “The stones of Barquq: building materials and architectural decoration in late fourteenth-century Cairo,” *Apollo* CIII 1976, 307–13. 310 author suggests the frieze beneath the inauguration inscription in the prayer hall has the only Mamluk example extant of (Byzantine) mirrored veneering.

been like. A few fragments survive, together with plentiful traces of the Ottoman removal of the rest, taken by Selim I to Istanbul after his conquest of Cairo in 1517, together with the marble decorations of the 1333 rebuild of the Iwan Al-Kabir, also in the Citadel.⁹² In both cases, this would probably be at least the third occasion of re-use. Pharaonic columns were no doubt employed because plenty were available, and we should be careful about assuming that their use indicates identification with a glorious past. Some inscribed columns (and also Pharaonic blocks, set as thresholds) were used as talismans against spiders and scorpions, part of the magic perhaps residing in the illegibility of the inscription. Thus Nasir-i Khusrau visited Ma'arrat Al-Noman in 1047 and, seeing beside the city gate "a cylindrical column of stone, which had something written on it in a script that was not Arabic,"⁹³ received this explanation.⁹⁴ The Qarawiyyin Mosque in Fez, repaired in 1289 from tributes imposed on the Christians, received on its dome "the signs and talismans which originally surmounted the first mihrab."⁹⁵ Pharaonic material was used for the same purpose in Cairo, and the Moslems frequently admired the "magical" statues—the talismans—of the Byzantines. Judging from a 14th-century account, there might have been materials on-site in Fez when the 9th-century mosque was constructed,⁹⁶ and Leo Africanus reports marble columns decorating houses, and some 50 mosques there.⁹⁷

Al-Nasir's son Hasan had plenty to live up to architecturally, and his architects managed this effortlessly with his mosque-madrassa (1356–61), facing the Citadel, and much taller and more elaborate than his father's mosque therein. The enormous portal is graced by an elaborate lime-

⁹² Rabbat, *The Citadel of Cairo*, 244ff.

⁹³ Nasir-i Khusrau, *Travels*, 11. The minaret has re-used basalt doors built into it, while the ablution fountain is supported on ten antique columns: cf. Herzfeld, Ernst, "Damascus: studies in architecture," *Ars Islamica* X 1943, 13–70; see 36–9.

⁹⁴ Dussaud, René, *Topographie historique de la Syrie antique et médiévale*, (Paris 1927), 188: today Ma'arrat has no ancient remains, but Dussaud cites Ya'qoubi at the end of the 9th century to the effect that it was an ancient city, and Ibn Shihna about a mediaeval dig which brought columns to light.

⁹⁵ Beaumier, A., ed., *Roudh el-Kartas, Histoire des souverains du Maghreb et annales de la ville de Fès*, (Paris 1860), 68–70; written in 1326, by the Imam Abd el-Halim, from Granada.

⁹⁶ *Ibid.*, 66–7: materials were extracted from supplies on the site itself, which provided the earth, sand and stones needed; as for the expansion, 78, the use of on-site materials is again emphasized: "great stones" were found which, "passing directly from the quarriers to the masons, made the work easier, and...assured the solidity and longevity of these constructions."

⁹⁷ *Leo Africanus* I.329–32.

stone muqarnas. But then the whole of the “entablature” around the building is one continuous muqarnas as well, the motif echoed in the shallow window embrasures ornamented with geometrical designs in marble and limestone, just like the portal itself. Once inside, the vestibule is itself the size of a smallish mosque, its dome supported on more muqarnas, and the wall decoration echoing that of the portal. The courtyard is marble-paved and immense. The main iwan was known to all to be higher than that at Ctesiphon, and panelled with a great variety of marble, supposedly cut from columns. Its centrepiece is naturally the mihrab, trumping the walls in richness and variety, enhanced by gilding. In the vast mausoleum behind, the marble panelling rises over four metres, topped by a gilded wooden inscription nearly two metres in height. Inscription and panelling decorate all four walls, the door and window embrasures as rich as mihrabs, and the mihrab itself flanked by especially fine marble columns. The grand manner continues in the 14th- and 15th-century Yusbak Palace, surely a deliberate reflection of the grand structures built by Al-Nasir on the citadel.⁹⁸ Revault & Maury believe they see such structures reflected in the small extravagances of the 1334 Bestak palace (to build which 11 small mosques and parts of the Caliphal palace were destroyed), which is likely since the two roundels flanking the porch have inscriptions singing the praises of Al-Nasir Muhammad.⁹⁹

The magnificence of the buildings in the cemeteries was a new experience for Christians who, after Antiquity, did not build monumental cemeteries until well after the Renaissance. Giacomo da Verona (1335) appreciated the marble and alabaster there, “the like of which he had not seen in the whole of Christendom.” Ogier d’Anglure (1395) compared the sultans’ mausoleums to lovely, spacious chapels.¹⁰⁰ Thévenot could only make Paris seem larger than Cairo by excluding Fustat and Bulaq.¹⁰¹ And houses continued luxurious: Thénau, travelling in 1512, stayed in a courtier’s house at Bulaq which had six or seven rooms (with fountains, and hot and cold baths) paved with marble, porphyry and serpentines, and with the walls similarly incrustated.¹⁰² Hence there

⁹⁸ Revault, Jacques, & Maury, Bernard, *Palais et maisons du Caire du XIV^e au XVIII^e siècle*, (Cairo 1977), II.2: for the Bestak Palace, 31ff. for the Yusbak Palace, both built by dismantling earlier structures.

⁹⁹ Revault & Maury, *Palais et maisons du Caire*, II.2.

¹⁰⁰ Chareyron, Nicole, *Pilgrims to Jerusalem in the Middle Ages*, (New York 2005), 162.

¹⁰¹ Thévenot, André, *Voyage*, (Paris 1664), chap 11, 237.

¹⁰² Schefer, Ch., ed., *Jehan Thénau, Le Voyage d’Outremer*, (Paris 1874), 36.

is little problem about writing of “architectures of power” in Cairo, since marbled display is the rule. If much of the marble came from Alexandria (and other cities, all of which are on the Nile), rulers could make a point by getting spectacular specimens from further afield. But there was plenty close at hand as well. Makrizi writes that Al-Malik Al-Salih built a mosque in the citadel on Roda (his funerary complex is of 1242–50): “He removed to it granite columns from temples, as well as marble columns... The citadel became a wonder in the amount of its ornament, and the observer was bewildered by the excellence of its decorated ceilings and that of its marble... He also destroyed thirty-three mosques built by the caliphs and nobility of Egypt.” Again, Al-Malik ordered the destruction of a palace within the citadel, “and a group of people took... a number of ceilings, many windows, and other things, and magnificent woods and marbles were sold from it” [all presumably for building materials].¹⁰³

We may assume that dismantling buildings was a favourite local occupation, which we find reflected in legends of “buried treasure,” which are sometimes stockpiles of marble. Makrizi explains how Baybars, wishing to build a fine khanqah (or religious hostel/college, 1306–10), was told by an emir of a Fatimid treasure underneath his father’s palace. His father opened it, found only precious marble, and sealed it again. But Baybars heard of the find, and had its contents checked, and used it for his khanqah, mausoleum and palace—and “what was left over he had stored in the khanqah where it is still kept.”¹⁰⁴ Baybars gets his effect from the contrast between the austerity of the khanqah (with its stone floor) and the lavishly marbled mausoleum, both behind a façade making extensive use of polychrome marble. Such hoarding of marble might have been common, since the Geniza documents suggest silk was hoarded.¹⁰⁵ Marble was needed to complement what Brett calls the “majestic shell” of the Fatimid palaces in Cairo, as a backdrop for a veritable “theatre state”¹⁰⁶—a disposition that might remind us of S. Marco in Venice as a backdrop to that state’s ceremonies.

¹⁰³ MacKenzie, *Ayyubid Cairo*, 72–3, 74. This book is in effect a commentary on the work of Makrizi.

¹⁰⁴ Fernandes, Leonor, “The foundation of Baybars al-Jashankir: its waqf, history and architecture,” *Muqarnas* 4 1987, 21–42; see 23.

¹⁰⁵ Jacoby, David, “Silk economics and cross-cultural interaction: Byzantium, the Muslim world, and the Christian West,” *DOP* 58 2004, 197–240; see 219.

¹⁰⁶ Brett, Michael, *The rise of the Fatimids. The world of the Mediterranean and the Middle East in the fourth century of the Hijra, tenth century CE*, (Leiden 2001), 326f.

The influence of Cairo's dazzling urban landscape was wide, and has been well-charted by Deborah Howard for Venice. It is not always necessary to posit direct Muslim-Christian influence, since various Coptic pulpits were heavily influenced by Islamic designs, and it is these which can be compared with specimens at Grado and Venice.¹⁰⁷ The marble-courtyard houses at Fustat might well just be reflections of common traits in housing but scholars trace the inspiration of similar arrangements to the Normans in Sicily.¹⁰⁸

As in Aleppo and Damascus (see below), so in Cairo marble building traditions survived in strength, well seen in the works of Qaytbay (ruled 1468–95), who visits Syria and Palestine.¹⁰⁹ Especially fine are his mosque (near that of Ibn Tulun), his large funerary complex in the Northern Cemetery, and his sabil kuttāb, or fountain-house-cum-koran-school. This last (1477) is perhaps the richest decorated building in Cairo, both for its intricate marble, limestone and other hard-stone exterior. It has a street façade and an entrance façade with marble inscription looking onto a small square, and a vestibule of jigsawed voussoirs. The fountain house does indeed have a marble fountain inside, delicately carved. Qaytbay's funerary complex (1472–9) boasts a mausoleum with a cut-stone dome, which is something of a Cairo trademark. Marble is moderately used in the portico, but in great profusion for the walls, floors and mihrabs of both mosque and mausoleum. It might seem illogical to enhance prayerhalls with marble floors, since these are generally covered with rugs, but it is a common practice, perhaps for coolness, perhaps because wood was expensive. Mausolea are not generally adorned with rugs, so their floors are easier to admire. A testimony to the attractiveness of such solutions is their continuation and development in Cairo into the 16th century (such as the Ghurriya Complex, 1504, structures facing each other across

¹⁰⁷ Middeldorf Kosegarten, Antje, "Die mittelalterlichen Ambonen aus Marmor in den koptischen Kirchen Alt-Kairos," *Marburger Jbuch für Kunstwissenschaft* 27 2000, 29–81; 63ff. for the pulpits in San Marco Venice (the northern one) and S. Eufemia in Grado, the former the 1270s, the latter of which she calls "ein Pasticcio"; 67ff. then produces a hypothesis linking Venice, Grado and Cairo.

¹⁰⁸ Staacke, Ursula, *Un palazzo normanno a Palermo: la Zisa. La cultura musulmana negli edifici dei Re*, (Palermo 1991), figs 86–91 for illus of the fountain room; 146–50 for Fustat, with plans of the courtyard houses, some with fountain runnels.

¹⁰⁹ Devonshire, Henriette, "Relation d'un voyage du Sultan Qaitbay en Syrie et en Palestine," *BIFAO* 20 1922, 1–43—including Baalbek, Lattakia, Antioch, Aleppo and Damascus.

the street), and then under the Ottomans,¹¹⁰ such as the Mosque of Sulayman Pasha in the Citadel (1527–8). Unlike the normal practice of obliterating the work of one's predecessors, Qaytbay seems to have “intended less to enlarge the city than to preserve and embellish it”—at the same time producing an amount of architecture nearly as startling as that of Al-Nasir Muhammad.¹¹¹

Aleppo and Damascus under Abbasids and Mamluks

If Cairo was the epicentre of marble extravagance, Syria had longer traditions of stonework, which united with plentiful materials, from limestone and marble quarries as well as old stock. In the Byzantine period, marble was supplied to many locations, but generally in small quantities—chancel screens and a few columns, whereas once whole façades had been imported.¹¹² Not all re-use was immediately ancient, for there are instances of Mamluk buildings spoliating earlier Mamluk structures for their veneers.¹¹³ Moreover, Allen traces a concern for high-quality stonework back to the Romans, and it is plausible that one of the spurs to its appreciation was indeed Roman example. Thus the first mosque of Aleppo incorporated the monumental arch on the colonnaded street, and the Great Mosque was built in the Roman agora, and used its materials—Ibn Al-Adim says it was rich in marble and mosaics,¹¹⁴ and materials are supposed to have been brought from Cathedral at Cyrrhus (Qorosh). Unfortunately, it is much altered. Built by Sulaiman (715–17) to rival his brother Al-Walid's mosque in Damascus, it might originally have had colonnades taken from earlier

¹¹⁰ Pauty, Edmond, “L'architecture au Caire depuis la conquête ottomane (vue d'ensemble),” *BIEAO* 36 1936–7, 1–69; 45–50 for the palaces in the Citadel, abandoned by the 19th century.

¹¹¹ Behrens-Abouseif, Doris, “Al-Nasir Muhammed and Al-Asraf Qaytbay—patrons of urbanism,” in Vermeulen, U., & De Smet, D., eds., *Egypt and Syria in the Fatimid, Ayyubid and Mamluk Eras*, (Louvain 1995), I, 267–83; quote from 275–6.

¹¹² Fischer, *Marble studies*, 267–73: “Marble and marmorarii in Roman and Byzantine Palestine.”

¹¹³ Meinecke, Michael, *Die mamlukische Architektur*, 96 & Taf. 58 for veneers from the Dar Ad-Dahab re-used in the Palace of As'ad Pasha Al-'Azam.

¹¹⁴ Allen, Terry, *A classical revival in Islamic architecture*, (Wiesbaden 1986), 23. 57ff.; 1ff. & figs 1,3, 4–6 for the entablature of the Madrasa al-Shu'aybiyah, which is classically inspired.

monuments around the courtyard.¹¹⁵ Stones from a temple on the site went into its great minaret, which has some classical characteristics. It was sacked by Nicephorus Phocas in 962. Elements of the palace in the Citadel survive, and it was surely on the same level of luxury as the citadel palace at Cairo. According to Ibn Shaddad, Al-Malik rebuilt the entrance gate “with Herculean stones,” completing it in 1213, as well as providing it with (apotropaic?) dragons and lions. Sibṭ Ibn Al-Ajami, who saw the palace (perhaps in ruins, certainly abandoned) in the fifteenth century, wrote of the coloured marble floors of the courtyard, with a fountain in its own marble iwan, itself of coloured marble, whence the water splashed down to a fountain in the middle of the court.¹¹⁶ The age of Aleppo ensures a frequent use of earlier materials, as with the (early Mamluk?) Al-Qiṣṣan Mosque, its façade decorated with projecting column-shafts, with elsewhere a Hittite inscription displayed. Tabbāa explains several of the building activities of Nur Al-Din in Syria (such as the conversion of the Cathedral in Aleppo) as political jihadist actions, supported as they sometimes are by apposite inscriptions.¹¹⁷ In this perspective, conspicuous antiquities may often be viewed as trophies of victory. This might be the same for the imitation of a classical entablature in the Al-Shuaybiyya Madrasa, of 1150. Indeed, attention to useful models continues: the portico of the Al-Tavashi Mosque (1372) displays capitals derived from the Byzantine “wind-swept” type. Small wonder, because the Madrasa Al-Halawiyya, originally the Byzantine cathedral (5thC), has capitals in the apse that could have acted as models.

Syria was noted for the quality of its stonework, and exported her expertise. Thus Herzfeld and others see the building techniques employed in the Bab Al-Futuh and the Bab Al-Nasir at Cairo as a continuation of antique traditions¹¹⁸—and Makrizi says the workers came

¹¹⁵ Herzfeld, Ernst, “Damascus: studies in architecture,” *Ars Islamica* XIII–XIV 1948, 118–38; see 119: he believes they were replaced by vaulted halls “only in 724–7, 731–9, and 824.”

¹¹⁶ Tabbāa, Yasser, *Constructions of power and piety in medieval Aleppo*, (University Park 1997), 72, 76–7, 94.

¹¹⁷ Tabbāa, Yasser, “Monuments with a message: propagation of jihad under Nur Al-Din (1146–1174),” in Goss, Vladimir P., & Bornstein, Christine V., *The meeting of two worlds: cultural exchange between east and west during the period of the Crusades*, (Kalamazoo MI 1996), 223–40.

¹¹⁸ Herzfeld, Ernst, “Damascus: studies in architecture,” *Ars Islamica* X 1943, 13–70; see 32 & figs 37–40.

from Edessa. The cutting of stone and marble can be admired in many buildings at Aleppo, two of the high-quality features of which (though plenty are to be seen in Damascus and Cairo as well) are muqarnas and arched voussoirs in marble, sometimes mixed with limestone for contrasting colour effects. A “jogged” voussoir is where the blocks are not cut simply wedge-shaped, but in a variety of intricate and interlocking patterns, like a Rubik Cube in stone. Both are the three-dimensional equivalent of the geometric patterns to be seen in various media, and display a delight in pattern and colour; both are surely profligate of expensive materials; and both must display craftsmanship of the highest order. In both the aim is well-nigh-invisible jointing. For Tabaa, such marmotechnics on façades were “a mark of distinction and a statement of status that sometimes hid quite ordinary structures.”¹¹⁹ But also splendid ones: the Maristan Arghun (1354) has a majestic cut-stone muqarnas entrance, and exquisite stonework within. Other buildings use a similar mix of stone portal and fine marble-jigsawing, such as both the Al-Tavashi and the Al-Otrush Mosques, where in both cases even the sills of the windows—and not just the lintels—are jigsawed. Indeed, so fine can be the stonework that marble is superfluous, as in the close limestone work of the prayerhall of the Great Mosque in the Citadel.

If the Citadel palace was a princely paradise, so also by the quality of its marble work as by its very name was the Madrasa Al-Firdaws (1235–41), where the courtyard of this 55 × 45m structure is adorned by three-metre-plus monoliths, and the exotic marbles of the mihrab are outstanding. The tradition is older: this virtuoso performance is matched in quality by the marble work on the façade of the Al-Matbakh Al-Ajami Palace (12thC: the earliest surviving example?), in the entrance to the prayerhall of the Great Mosque, in the Al-Soultaniyah Madrasa (1223), and in the Al-Bahramiye Mosque (1580). And outside the prayer hall, the courtyard is the only one in Aleppo with a peristyle on three sides, “a design feature that may reflect the rich Roman and Byzantine heritage of the region.”¹²⁰ In all such marble work, not only is the workmanship superb but the inventive shapes and interlacings bespeak an abundance of available materials, for again the blocks are not mere veneer-like surface decoration. When the building has moved slightly, the structure can often be seen, and the depth of

¹¹⁹ Tabbaa, *Constructions of power*, 148.

¹²⁰ *Ibid.*, 168ff.

the cut marble checked. In the Al-Firdaws mihrab, for example, the curved blocks describing the quarter-dome of the niche are quite clearly substantial: they are indeed like the intricate and interlocking pieces of a three-dimensional puzzle. Nothing like this was ever attempted in Christendom, where the use of marble can be equally lavish but is never as adventuresome or as three-dimensional.

Naturally, similar work is to be seen in Damascus. Monuments conspicuous for their jigsaw-work include the Mausolea of Sheik Hassan, Arak and Wali Al-Shaibani, all of which have a stone muqarnas portal, the Arak Mausoleum with reminiscences of the Al-Firdaws mihrab arabesques in blue tile. The Madrasa Al-Adilya (1222) has small domes instead of muqarnas. The Madrasa Al-Zahiriyya (1262–3) incorporates the Mausoleum of Al-Zahir Baybars, and is especially elegant, with its portal rich in inscriptions, and its interior retaining elaborate marble dadoes and mosaics inspired by those of the nearby Umayyad Mosque. The Madrasas Al-Jaqmqiya, Sabuniye and Sibaiye, built 1418–20, 1459–64 and 1509–15 respectively, demonstrate the continuing fashion for such exuberant decoration—or, as one critic has it, “everything was sacrificed to outward appearance, and the monument was no more than a support for shown ornamentation.”¹²¹ Mosques also display fine stonework: the Al-Ajami (after 1348) with a portal nearly as intricate as the Al-Firdaws mihrab, the Al-Aqsab with sharply-cut black and white limestone and, like the Al-Tawba, with a splendid stone-work minaret; and the Taynabiye, with its mix of marble, limestone inscription, and sandstone muqarnas. As in Aleppo, traditions continue, in the Darwish Pasha Mosque (1574) and Sinan Pasha Mosque (1590–4), which has an especially rich interior with marble columns and wall veneers, and superb marble minbar. Again, re-use continues. The Bimaristan of An-Nouri (1154) with an antique tympanum gracing its entrance, parallel to Aleppo’s Dar Al-Hadith (1154/74) which displays a re-used doorframe carved with a classical moulding; and its lintel block bears an elongated but uninscribed tabula ansata. Classical columns are re-used in Damascus when available, such as those in the mihrab of Nur Al-Din’s tomb-chamber.

¹²¹ Elisée, N., in *EI Damascus*.

The Seljuks in Anatolia

The Seljuks of Turkey had great admiration for classical antiquities,¹²² and used earlier sculpture and bas-reliefs in their civic buildings. Of these the most spectacular were the walls of Konya,¹²³ where antiquities were placed prominently (together with contemporary bas-relief sculpture) on the gates. According to Ibn Bibi,¹²⁴ it was Alaeddin who paid for the four gates, and his beys each a section of the walls: verses of the Koran, and various hadith, were inscribed, as well as parts of the Shahnamah. Alaeddin had his names and those of his beys placed as gilded inscriptions, “in order to preserve across the centuries the renown of their devotion.” Unfortunately walls and gates have been destroyed (although we have 19th century prints of them), but travellers admired them. Hamilton describes them thus in 1842: “...faced with large well-cut blocks of stone, and strengthened by square towers, some of them richly ornamented with cornices, arabesques, lions’ heads, and Arabic inscriptions. We entered the town by a handsome gateway in one of them, which might be called the tower of Hercules, from a large colossal statue, the head of which is gone, fixed against the outer wall. Above this is an alto-rilievo, representing several figures in procession, apparently Byzantine, with an emperor or general seated on a throne at one end; above this are several Arabic inscriptions.”¹²⁵ To this we can add Texier’s account, in which he notes the large gilded marble inscriptions on the face of each tower, a sarcophagus in a south tower of Achilles on Skyros, and a host of lions—he counts 20 all over Konya—especially the three colossal ones sitting on brackets in the western walls.¹²⁶ The Archaeological Museum does indeed have whole prides of marble lions, and several splendid sarcophagi (so it is not difficult even today to imagine the magnificence of the walls, matched as they were by magnificent buildings such as the marble portal to the Karatay Madrasa of 1251–2), but the Achilles sarcophagus must have been taken elsewhere. Leake in 1824 was equally impressed: the Seljuks “seem to have taken

¹²² Scott Redford, “The Seljuqs of Rum and the antique,” *Muqarnas* X 1993, 148–156; see 149–50, for Ibn Bibi’s description of the siege of Alanya, and the specification to use marble for the projectiles.

¹²³ dvd_konya_walls.doc.

¹²⁴ Huart, Claude, *Konia, la ville des derviches tourneurs*, (Paris 1897), 174–5.

¹²⁵ Hamilton, William John, *Researches in Asia Minor, Pontus and Armenia: with some account of their antiquities and geology*, (London 1842), II, 196–7.

¹²⁶ Texier, *Asie Mineure*, 662.

considerable pains to exhibit the Greek inscriptions, and the remains of architecture and sculpture belonging to the ancient Iconium... We perceived a great number of Greek altars, inscribed stones, columns, and other fragments inserted into the fabric... We observed in several places Greek crosses, and figures of lions... and on all the conspicuous parts of the walls and towers, Arabic inscriptions, apparently of a very early date."¹²⁷

Such praise would have delighted Alaeddin Keykubad, who also employed a large variety of column-shafts and capitals in the Alaeddin Mosque. Some of these, already re-used, perhaps came from a 5th-century dismantled Byzantine church; other appear in the walls of his mausoleum in the mosque courtyard. According to Redford, he added the hypostyle area to the mosque in 1235,¹²⁸ and its short, two-metre-plus monoliths supporting a flat ceiling demonstrate how oppressive the much larger areas of the Mezquita at Córdoba would have been without devices to add more space above the ground-level columns. The Museum of Seljuk Sculpture in Konya displays large amounts of marble, some from the Alaeddin Mosque, some from the walls of Alaeddin's Citadel, as well as the spectacular single-block mihrab from the Ulvi Sultan Mosque. Much of the sculpture is figurative, and inscriptions figure prominently, including sections of a large marble inscription from the Alaeddin Mosque, and fragments from the walls (where, as we have seen, there were many). The Ince Minari Madrasa, with its marble façade and minaret-base, extravagantly decorated with formalised plants and flowers, suggests the Seljuks looked closely at Armenian Christian exteriors such as Aght Amar, and then added large inscriptions for a spectacular result. Whether all the marble on such a building (or on the flatter-decorated and later Sircali Madrasa) was old seems doubtful, but which quarries could Konya have used? Indeed, could the large blocks decorating the Citadel have all been in re-use?

Marble was not available everywhere on the Anatolian plateau. The Seljuks also built several mosques with wooden columns and old marble capitals, such as the the Esrefoglu (1297–9) at Beyshehir, and the ArslanHane in Ankara (1290), which has decorative materials displayed

¹²⁷ Leake, William Martin, *Journal of a tour in Asia Minor*, (London 1824), 48–9.

¹²⁸ Redford, Scott, "The Alaeddin Mosque in Konya reconsidered," *Artibus Asiae* 51 1/2 1991, 54–74; see 58: Michael, later 12th-century Jacobite Patriarch of Antioch, ascribed the death of the governor of Hisn Kayfa to his removal of marble columns from a church for use in his palace.

both in its minaret and on its exterior walls, themselves part-built of marble, like the adjacent turbe.¹²⁹ Roman altars make stylish gate- and corner-posts for the Alaeddin Mosque at Ankara, which has apparently matching (if damaged) column-shafts in the portico. Although wood was no doubt precious in these areas, it seems likely that monolithic marble column-shafts were in short supply—certainly any tall enough to support these two mosques. Beyshehir has a highly decorated (and much-restored) entrance which incorporated a figured sarcophagus as a water basin, an open impluvium inside (now glassed over), and not a marble column in sight (and the mihrab is tiles). The ArslanHane has an intact marble entrance with cut-marble muqarnas, a large collection of old blocks in the base of its minaret (included a confected “entablature”), and inside four-metre wooden columns support a flat wooden ceiling with late-antique marble capitals, mostly Corinthian and some very fragmentary, but some simply upturned bases.

As an exception to the Moslem rule, we also find the Seljuks reusing figured sarcophagi in religious locations. The tomb of Halifet Alp in Amasya (c.1206) has a garland sarcophagus with heads and naked putti,¹³⁰ while another with seated philosophers is a fountain-basin on the exterior of the Esrefoglu Mosque in Beyshehir. A famous figured sarcophagus (perhaps one of those now in the Archaeological Museum) stood in a garden in Konya in Seljuk times, and was admired.¹³¹

Ottoman Bursa, Manisa and Istanbul

Bursa was captured by the Ottomans in 1326, and quantities of marble from earlier monuments were used in the new mosques and baths, as they had been in the Byzantine walls of the citadel, the gates of which were of brick faced with marble. The Ottomans surely “caught” their interest in marble spoliation from the Seljuks in Anatolia. Pillars not columns support Ulu Camii (1396ff.), but Alauddin Pasa Camii (1326)

¹²⁹ Otto-Dorn, Katherine, “Seldschukische Holzsäulenmoscheen in Kleinasien,” in Ettinghausen, Richard, *Aus der Welt der islamischen Kunst: Festschrift für Ernst Kühnel*, (Berlin 1959), 59–88; see 67–9 & Abb. 8 & 10.

¹³⁰ Isik, Fahri, “Das Kuppelgrab von Halifet Alp-Gazi in Amasya und sein wiederverwendeter römischer Girlandensarkophag,” in Andreac, *Reimpiego dei sarcofagi*, 247–74. The author illustrates a garland sarcophagus from Ulu Camii, Aksaray, as fig. 16—but the bucrania have been hammered off.

¹³¹ E.g. by Al-Harawi, *Guide*, 132.

has a portico of Byzantine columns and capitals, and miscellaneous old blocks built into its sandstone and brick walls. In the 15th century, old columns are sparsely used in the portico of Muradiye Camii (1447ff.), and tiles are much in evidence as decoration (Yesil Camii, 1424). Bursa-in-a-nutshell can be viewed by visiting the various turbe in the grounds of the Muradiye, especially that of Murat II (1451), where the entrance and window embrasures look like recut antique slabs, while inside the cenotaph is marble, and surrounded by a mixed bag of columns and capitals, one Byzantine, and two Corinthian ones used as bases. The turbe of Gulsah Hatun (wife of Mehmet the Conqueror) has an entrance with elegant jogged voussoirs, and marble cenotaphs inside, new-made from old pieces. That of Sehzade Ahmet (1513) is similar in both respects. None re-uses classical sarcophagi. Al-Zahir Baybars' Al-Zahiriyya Madrasa (1277) at Damascus, richly decorated though it is, likewise has white and undecorated marble slabs for the cenotaphs, as does the Madrasa Al-Firdaws at Aleppo.

Like Bursa, Manisa is an ancient city on the side of a mountain, again with plenty of old blocks in its elegant marbled mosques near to the plain. But the main mosque, Ulu Camii, is on a ridge at the top of the town. Built in 1366–7, the architects have attempted to pair up the elements, but they are a very miscellaneous collection of shafts and capitals (no bases are visible), both in the courtyard and the prayerhall. Is the explanation that they used the four-metre-plus shafts available on or very near the site?

By comparison with Cairo, Istanbul was a let-down for some travellers, at least in part because so much marble from the Christian city went into mosques and palaces. This is reflected in the large numbers of masons (600–800) and stonecutters (400–800) employed each day in building the Suleymaniye.¹³² Pitton de Tournefort grumbled in 1717 that the only antiquities to be seen were “two obelisks...and some columns...and some bas-reliefs in the Seven Towers.”¹³³ In exchange, the Ottoman city was spectacular, because it also imported marble from the devastations of the Turks across Anatolia in the 13th and 14th

¹³² Barkan, Omer Lufti, “L'organisation du travail dans le chantier d'une grande mosquée à Istanbul au XVI^e siècle,” *Annales* 17, 1962, n. 6, 1093–1106 with tables etc.; see 1098: most masons were Christians, from Mytilene, Rhodes, Thessaloniki, Morea, and Gallipoli—hence skilled in re-cutting old blocks?

¹³³ de Tournefort, Pitton, *Relation d'un voyage du Levant*, 2 vols, (Paris 1717), I.509.

centuries, which provided reusable ruins for centuries.¹³⁴ Why did the Ottomans look to Byzantine precedents? It was “part of their symbolic appropriation of the land... as the rightful heirs of the Roman/Byzantine Empire,” suggests Ousterhout¹³⁵—and this entailed re-use in large quantities. Indeed, even Constantine’s and Justinian’s monuments could not supply marble on the scale required: we have documents suggesting that the Ottomans did not wilfully destroy earlier standing or functioning monuments, and no evidence that they did. In any case, by the 15th century their huge projects surely could not be fed from old materials in Istanbul, so materials, builders and artisans were collected from far and wide to complete them, and the Marmara quarries were again in full swing.¹³⁶ The sultans were also aware of the kinds of structures against which they were competing, perhaps consciously. Whether the Ottomans took marble from Athens is not known, but is likely, in view of Kritovoulos’ remark that when Mehmet visited that city he “reconstructed mentally the ancient buildings... and he conjectured how they must have been originally”¹³⁷—perhaps measuring the achievements of the ancients against his own requirements.

Though structures in use were supposedly left alone,¹³⁸ ancient cities conveniently close, such as Alexandria Troas, were extensively plundered,¹³⁹ as can be seen in nearly villages such as Kemali or Gulpinar. This site, with its own bay, supplied marble and granite projectiles for the great guns at the Dardanelles well into the 19th century. Antiquities lie all around here, and in Canakkale, as well as in the fortress

¹³⁴ Vryonis, Speros, “The Byzantine legacy and Ottoman forms,” *DOP* 23 1969–70, 251–308:265–6 for lists.

¹³⁵ Ousterhout, Robert, “The east, the west, and the appropriation of the past in early Ottoman architecture,” in *Gesta* XLIII.2 2004, 165–76; see 167/.

¹³⁶ Palerne, Jean, *Pérégrinations*, (Lyon 1606), 374: “Tout le marbre qui est employé aux Mosquées, Carasserrails, et autres édifices de Constantinople, provient de là: y ayant ordinairement de cinq à six galères députées pour en aller chercher... vismes une colonne, que l’on tailloit sur le mesme roc toute d’une pièce, que quatre hommes ne scauroyent embrasser...”

¹³⁷ Ousterhout, Robert, “The east, the west,” 171.

¹³⁸ Vatin, Nicolas, “Notes sur l’exploitation du marbre et l’île de Marmara Adasi (Proconnèse) à l’époque ottomane,” *Turcica. Revue des études turques. Peuples, langues, cultures, états* 32 2000, 307–362; see 314: “The Ottomans did not practise systematic vandalism. When they could preserve or recover a church or an old building, they did so. But a ruin was a quarry like any other.”

¹³⁹ Vatin, “Notes sur l’exploitation du marbre,” 334ff. for archival documents from the 1570s for getting material by the seaside opposite Bozca Ada—from Alexandria Troas.

of Kilitbahir across the straits, where marble projectiles are used as a decorative motif. Topkapı Palace seems to have been a collecting-place for imported pieces, some of which came from Cairo.¹⁴⁰ Later buildings there, such as the 17th-century Audience Chamber and the Baghdad and Revan kiosks, though still rich in antique marble, underline the declining availability of the finest material: column-shafts are chipped, veneer panels do not match, and collars are used to disguise the height differences of shafts. But marble was also disappearing at a great rate before the Ottomans got deep into their megalomarmomania in their new capital, as we know from Cyriacus' two visits to the great temple of Cyzicus (Sea of Marmara) in 1431 and 1444/5. Between these dates the cella wall and a large part of the epistyle disappeared, together with four more columns—and no later visitors mention any standing columns.¹⁴¹ The contemporary Romans did likewise: Poggio Bracciolini visited Rome in 1405, and says he found Temple of Concord uninjured, and could copy the inscription on the epistyle; but on his second journey (after 1422) the temple had nearly disappeared.¹⁴² Selim's 1517 exactions from conquered Cairo amazed the Venetian ambassador at Alexandria, Nicolo Bragadin, who listed some of the material for his masters: "il Signor a fato cargar su l'armada mandata a Costantinopoli, assa spoggie e richeze tolte al Cairo, Item, colone di porfido longe pie 20 e large a proporzion, ch'e bellissime. Item, desfato moschee e palazi per portar via porfidi e marmi etc."¹⁴³

With the transformation from a Christian to an Islamic capital,¹⁴⁴ some churches in Istanbul were turned into mosques, other abandoned and probably demolished for their materials.¹⁴⁵ Thus the later fifteenth-century Davut Pasha Madrasa re-used splendid sixth-century capitals,

¹⁴⁰ Necipoglu, G., *Architecture, ceremonial and power: The Topkapı Palace in the 15th and 16th centuries*, (Cambridge Mass 1991), 220ff.

¹⁴¹ Hasluck, Frederick William, *Cyzicus: being some account of the history and antiquities of that city, etc.*, (Cambridge 1910), 10.

¹⁴² Lanciani, *Wanderings*, 33. This is long before the New S. Peter's.

¹⁴³ Bacqué-Grammont, Jean-Louis, "Remarques sur l'exploitation du marbre à l'époque ottomane," in Temimi, A., ed., *Mélanges Professeur Robert Mantran*, (Zaghouan 1988), 31–34; see note 3.

¹⁴⁴ Francetti Pardo, Vittorio, "Costantinopoli: la trasformazione di Bisanzio nella capitale imperiale," in Benevolo, Leonardo, ed., *Metamorfosi della città*, (Milan 1995), 3–72.

¹⁴⁵ Cerasi, Maurice, "Da Costantinopoli a Istanbul: I secoli XV–XVII," in *ibid.*, 75–148; figs 31–8 for most useful plans of the city with the Byzantine and various types of Ottoman monuments in differentially-coloured overlays.

and marble friezes with crosses as part of the decoration.¹⁴⁶ Sensibly, in view of so many large projects, it was apparently common to stockpile materials, and for the best marble to be reserved for the Great and the Good until well into the eighteenth century.¹⁴⁷ Because Haghia Sophia was the model, it was left almost intact because much admired; it was apparently spoliated only of some proconnesian inscribed panels, for the turbe of Suleiman I.¹⁴⁸ Especially attractive were its tallest columns; so that the architect of the Fatih (“Christodoulos”) also obtained some large ones, and supposedly annoyed the Sultan by sawing down two of the longest columns he had collected, which were uncovered last century. Many courtyards of the great Ottoman mosques incorporate monolithic columns with capitals and bases, but except for mihrabs and dikkas the interiors were generally (but not always: cf. the Suleymaniye) too large to display even enormous old columns. This was surely making a combined architectural and political point about the out-distancing of the constructions of predecessors. Smaller shafts could fit into gems such as the Semsî Pasha Madrasa (1580–1), today containing a library. Other materials are cut to fit or decorate, such as the porphyry slabs and marble slabs in the courtyard of the Nuru Osmaniye, Bayezit and Suleymaniye mosques.¹⁴⁹ In this, the Ottomans seem to in part follow the Byzantines: Haghia Sophia displays no antiquities as such except for the great columns. Kalenderhane, for example, displays ancient columns, capitals and bases in the interior (an equivalent to the antiquities-rich-courtyards of the great mosques), and also extensive marble wall veneers which, given the structure’s date, must be re-cut (apart perhaps from the sheets of proconnesian?). With some monuments, the source of the marble is unknown, but conceivably taken from a church. One now lost stood near the cannon-foundry. Lacroix notes, outside the seraglio wall, “a kiosk, supported on twelve verde antico columns, a precious survival of the rich industry of the Greeks. Further

¹⁴⁶ Guiglia Guidobaldi, Alessandra, “Sculptura costantinopolitana del VI secolo. I capitelli reimpiegati nella medresa della moschea di Davut Pasha,” in Barsanti, *Milion*, 231–44.

¹⁴⁷ Vatin, “Notes sur l’exploitation du marbre,” 362.

¹⁴⁸ Mango, Cyril, *Studies on Constantinople*, (Aldershot 1993), XVIII.317–30, “The Conciliar Edict of 1166”—found in 1959 on five large proconnesian slabs (and there were more) reversed as marble ceiling to entrance porch of Turbe of Suleiman I. Kidonopoulos, *Bauten in Konstantinopel*, 121–5 for the post-1204 history of the church.

¹⁴⁹ *Asutay-Effenberger, Neslihan, & Effenberger, Arne, *Die Porphyrsarkophage der öströmischen Kaiser*, (Wiesbaden 2006), 39–43 & plates 22–33.

along are sheds containing several artillery pieces of old design and very large calibre.”¹⁵⁰

Babinger cites a 15th century lament for how expensive was the whole process in marble, transport and men.¹⁵¹ For the Süleymaniye large columns were specified, and disparate ones gathered (after much confusion about quantities and locations) from Egypt, Baalbek, Istanbul itself,¹⁵² and perhaps Ephesus.¹⁵³ Rogers is clear that the architect Sinan could never have used such monoliths, and put them into store or used them elsewhere. Nor do the documents match what is seen there today, which is proconnesian—so the documented pieces “most probably ended up, sawn into panelling, all over the later sixteenth-century monuments of Istanbul.”¹⁵⁴ This was also the fate of some porphyry sarcophagi, found in 1750, one while digging foundations in the seraglio, and noticed by Flachet in 1766. “It was decided at first to saw up, to revet the walls of a mosque”—but this did not happen, and the vessels awaited the pleasure of the Sultan. He continues: “the portico giving entrance to the Third Court is embellished with 16 columns of porphyry or verde antico; and room walls within the Third Court are embellished with porphyry veneer, and other rare marbles... The room called the Seffer

¹⁵⁰ Lacretelle, Charles de, *Voyage pittoresque de Constantinople et des rives du Bosphore d'après les dessins de M Mellin, architecte de l'Empereur Selim III*, 2 vols, (Paris 1819), unnumbered pages.

¹⁵¹ Hickman, William C., ed., Babinger, Franz, *Mehmed the Conqueror and his time*, (Princeton 1978), 294: “How the columns were then brought from distant lands and what sums were spent on transporting them, God alone knows. Who can indicate the sums expended in for the new mosque, especially in view of the fact that all the columns and stones were ready and prepared [presumably stockpiled]... In those days [referring to former times] building was not done by means of coercion. All work was paid for. If today we wished to erect a building, we would collect money from all the provinces and cities and we would transplant architects and artisans by force from all the provinces...”

¹⁵² Necipoglu-Kafadar, Gulru. “The Süleymaniye Complex in Istanbul: an interpretation.” *Muqarnas* 3 1985, 92–117, especially 102ff. Bacqué-Grammont, “Remarques sur l'exploitation du marbre,” 32: Süleymaniye documents “montrent de manière incontestable que colonnes et revêtements antiques furent transportés depuis l'Égypte et depuis Baalbek, d'autres prélevés sur des monuments d'Anatolie, tant chrétiens qu'islamiques, probablement en ruines à cette époque.”

¹⁵³ Le Brun, *Voyage au Levant*, (travelling 1678ff.), 30 notes the Mosque at Seljuk, “all marble outside and in, and yet more splendid specimens would be seen there, had not Sultan Süleiman had taken to Istanbul everything he thought useful for the mosque he was building there.”

¹⁵⁴ Rogers, J. Michael, “The State and the arts in Ottoman Turkey Part 2: the furniture and decoration of Süleymaniye,” *Int Jnl Middle East Studies* 14.3 1982, 283–313; see 285.

Odasse on the right at the bottom of this court has in its vestibule a frontispiece of several great columns of verde antico and porphyry.”¹⁵⁵ Others were found in 1848 in the grounds of Topkapi, perhaps awaiting a similar fate.¹⁵⁶ The movement of fine marbles to Topkapi began early. In 1550 Gassot writes that “there were carried thither large pieces of marble (*grosses pierres*) of all colours, porphyries, columns and other choice items both from the city of Constantinople, and from Greece and Asia, to build it”.¹⁵⁷ So perhaps the porphyry sarcophagi from the Holy Apostles were already there by that date. From a total of some forty-four vessels, not all of them porphyry, some fifteen survive, eight of them porphyry;¹⁵⁸ presumably, most of the rest were sawn up for veneers for various purposes.

What we may deduce as Sinan’s attitude to re-used marble marks a change from earlier centuries. Like his contemporaries in Europe, whose work he surely knew about in considerable detail, he is interested in symmetry and newness. Because old blocks could not easily fit the grand size of his constructions, he dictated to the materials, rather than vice versa. Any pieces used were generally disguised by being recut, so that it is the material which shines, not its source. Since the quarries at Proconnesus were definitely in operation by his day, the attraction of re-use declines somewhat unless particularly beautiful pieces can be found. Getting useful blocks was especially tedious, the more so given transport conditions in Anatolia.¹⁵⁹ It could require the official at the marble end to take measurements and send them to Istanbul, where the architects had to decide whether they wanted the piece, and what to do with it. Sometimes it is Istanbul which first stipulates what is needed, but it can be unclear in the documents whether the mentions of “marble arches,” “window frames,” or “pavement marble” are what the architects specify the provincials to hunt for, or what the provincials have found and are offering to the architects. One way

¹⁵⁵ Flachet, Jean-Claude, *Observations sur le commerce et sur les arts*, 2 vols, (Lyon 1766), II, 2ff., 174–5.

¹⁵⁶ Mango, *Studies on Constantinople*, VI, 398–402, “Three Imperial Byzantine sarcophagi discovered in 1750.”

¹⁵⁷ Gassot, Jacques, *Le discours du voyage de Venise à Constantinople*, (Paris 1550), 10. Could the material unearthed at Seraglio Point in 1981 be the remains of such a stockpile? Cf. Barsanti, Claudia, “Istanbul: un inconsueto capitello ionico ad imposta di età giustiniana,” in de’Maffei F., et al., eds., *Milione: Studi e Ricerche d’Arte Bizantina*, 2: *Costantinopoli e l’arte delle province orientali*, (Rome 1990), 423–5.

¹⁵⁸ Gnoli, *Marmora*, 66–75.

¹⁵⁹ Details in Vatin, “Notes sur l’exploitation du marbre,” 316–17, 334ff.

around the problem was to send workmen to an especially large site, such as Cyzicus. This had fed Bursa in the previous century, but for the Suleymaniye workmen and quarrymen were sent there, obviously with lists of measured desiderata to hand, so blocks were clearly being retrieved and re-cut on-site.¹⁶⁰

Unfortunately, some of the Ottoman splendours mentioned by past travellers have disappeared. One example is Suleyman's kiosk at Ingir Koi near to the village of that name on the Bosphorus. Antoine Galland saw it in 1672–3: "Several columns are laid cross-wise to serve as foundations, and there is a white marble column decorated with shoots and vine leaves with bas-reliefs of things representing the grape-harvest. People maintain that it comes from a Byzantine temple sacred to Bacchus [!] which Petrus Gyllius mentions."¹⁶¹

Conclusion

Mamluk Cairo offers a wide range of high-quality buildings rich in old marble and granite—the greatest mediaeval Islamic cityscape anywhere. Her structural and especially decorative influence spread not just to Damascus and Aleppo but (along perhaps with Alexandria) to Christian Europe, especially Venice. Ottoman Istanbul represents a different approach to marble. Even if some of the best pieces were removed when they took over Cairo (such as from the Mosque of Al-Nasir in the Citadel), Istanbul rarely displays the colourfully festive kaleidoscope of later Mamluk Syria or Egypt. The Mamluks made great use of ancient columns, Pharaonic as well as antique and Byzantine, but recut all their intricate portal-stonework, mihrab-decoration and wall veneers (and old architraves or panels very rarely appear as wall decoration). The Ottomans, frequently building on a much larger scale and constructing interiors unmatched in volume since the Pantheon and Haghia Sophia, could make very little use of small columns, which were relegated to maqsuras, dikkas and tombs, while larger ones formed imposing courtyard arcades. Courtyard floors sometimes incorporated old marble and porphyry, providing some of the few splashes of colour, but these were

¹⁶⁰ Robert, Louis, "Un décret de Cyzique sur le Bosphore," in his *Documents d'Asie Mineure*, (Paris 1987), 148–56; see notes 17, 18.

¹⁶¹ Schefer, Charles, ed., *Galland, Antoine, Voyage a Constantinople (1672–3)*, (Paris 2002), 213.

not used inside the great Imperial mosques (unless recut). In one respect, the Ottomans simply outgrew the available materials, while recutting large amounts of it, as the documents relate; but their aesthetics dictated a restrained, even austere approach to the handling of marble.

Just as reusing the Roman past in the West does not necessarily entail consciousness of or interest in “heritage,” so what evidence we have suggests that the Islamic interest in marble is primarily in the material itself. As we have seen, in Ottoman times much was recut, hence losing any evident connection with the past, so we should take care in assuming motivations of conquest, triumph, or “acquiring new ancestors.” Only when ancient pieces are prominently displayed can we be secure about notions of triumph. Hence for the invading Muslim rulers in India, it has been suggested that “the re-used Asokan pillars were conscious links to the pre-Muslim past of India and to some of its most glorious rulers.”¹⁶² The Ottoman Turks had no connection whatever with Graeco-Roman civilization, but this did not prevent re-use, or indeed the appearance of classical monuments on modern banknotes. Again, the Fatimid then Mamluk (non-Egyptian) rulers of Cairo had no parentage with the ancient Egyptians whose monuments they both plundered and admired—and Pharaonic monuments appear (with a much more solid lineage) on today’s Egyptian banknotes.

¹⁶² Welch, Anthony, “Architectural patronage and the past: the Tughluq sultans of India,” *Muqarnas* X 1993, 311–322; see 320.

CHAPTER ELEVEN

FRANCE AND CHRISTIAN SPAIN

Introduction

This chapter falls into two main sections. The first provides an overview of the use of marble in France and Christian Spain. Evidence in Spain is sparse indeed, although there is always the suspicion that many marble-rich Visigothic monuments were dismantled so that their materials could be used in Muslim palaces and mosques. We begin with late Antiquity in France, tracing the rise and fall of marble versus stone in sarcophagi, columns and capitals, and then the explosion of building after the Millennium, concluding that while Glaber's "white mantle of churches" might describe the Heavenly Jerusalem, it has slender meaning for any interpretation of built architecture. Having noted the patchy use of old marble even in southern France, we then pass to Spain, to discover that the sumptuous churches of the pilgrimage routes in Spain, such as S. Isidro, in León, and including the culmination at Santiago, make little or no use of this material. The evidence is certainly skewed, since we know so little about (for example) the details of the structures of Alfonso "El Casto" at Oviedo, and about Islamic monuments (Seville, Granada) which probably took their materials from Christian churches.

The second section examines the mechanics of survival and revival in two of the marble-rich erstwhile Roman areas of France, namely the cities of Arles and Narbonne. Here exceptionally rich collections of municipal archives survive, backed by the documentation and accounts of local antiquaries. All these allow us to chart how antiquities were handled during the population changes of the period, when prosperity spelled destruction for the antiquities, and stagnation survival.¹ Perhaps the same happened in Italian cities, but few details survive.

¹ The DVD contains further material on Narbonne together with accounts of other cities (dvd_narbonne_nimes.doc, dvd_perigueux_poitiers_saintes.doc) and a short account of re-use in England (dvd_england.doc) because of her manifold connections with the Mediterranean world and her desire to imitate its marble re-use.

Before the millennium

In Roman times both Spain and the French Pyrenees were famed for their marble quarries, and it seems likely that the Moslems did indeed quarry marble in Spain, perhaps in old Roman quarries. Saint-Béat and other Pyrenean quarries were producing sarcophagi and capitals (and columns?) much longer than anywhere else in the cusp between the antique and mediaeval worlds, perhaps into the eighth century,² so that late-antique monuments in Languedoc are a mix of Pyrenean and Carrara, with only a little Proconnesus.³ The 4th century seems to be the break-point in Catalonia, when the importation of Italian marble halted, and Saint-Béat begins to appear—surely rafted down the Garonne, and then round the peninsula by water.⁴ Perhaps local markets did keep such quarries going, just as demands in the Pisa area may have kick-started quarrying at Luni/Carrara again.

In spite of such quarries, the Early Christian use of marble in France and Spain is less frequent and more fitful than in either Islamic lands or in Italy. No coherent chronology is possible, since nothing like the LP exists,⁵ and there is no survey of usable quarries, or exportable marble.⁶ There is no tradition of large and local Christian basilicas to imitate, or apparently of clergy alert to trends in Italy. Even in Provence, France did not partake in the Constantinian surge (or later imitations)

² Rouché, Michel, *L'Aquitaine, des Wisigoths aux Arabes, 418–781: naissance d'une région*, (Paris 1979), 191, 314; Cabanot, Jean, "Sarcophages et chapiteaux de marbre en Gaule," *Antiquité tardive* 1 1993, 111–124. *Cabanot, Jean, "Chapiteaux de marbre antérieurs à l'époque romane en France. Pour une nouvelle orientation des recherches," *Capiteles corinthios*, 71–86; see 80. Duval, Noel, ed., *Antiquité tardive* 1 1993, 9–169 (on the theme of Les sarcophages d'Aquitaine) for an état de la question.

³ Merel-Brandenburg, Anne-Bénédicte, et al. in ASMOSIA 2007, "De l'origine des matériaux utiles pour les monuments sculptés de l'Antiquité tardive en Languedoc méditerranéen."

⁴ Mayer, Marcos, Alvarez, Aurelio, & Rodá, Isabel, "Los materiales lapideos reaprovechados en construcciones medievales en Cataluña: la ciudad de Barcelona y su entorno," *Artistes, artisans et production artistique au Moyen Age II*, (Paris 1987), 529–58; see 552.

⁵ Février, Paul-Albert, "Le décor sculpté," *Naissance des arts chrétiens: atlas des monuments paléochrétiens de la France*, (Paris 1991), 220–32; 220 for dating difficulties: "les inventaires manquent, comme manquent les datations sérieuses des oeuvres qui ont imité les marbres importés d'Orient ou de Carrare. L'approximation est toujours la règle."

⁶ Rouché, *L'Aquitaine*, 309: believes Aquitaine black marble columns, veined with white, went to Constantinople. Cf. Salin, E., *La Civilisation mérovingienne*, I, (Paris 1950), text 40 of Paul the Silentiary, 467 v.627–37.

of five-aisle basilicas, for none have been found in the country.⁷ The reduced population of ancient cities usually meant smaller settlements, with new walls often made with old blocks.⁸ Smaller churches needed fewer building materials, hence less marble, with the result that France (especially Provence) retained antiquities longer than Italy, which lost many during the population explosions after the Millennium. Indeed, the Roman cities of Provence were so rich that spoliation continued into the Renaissance. Amphitheatres and theatres were used as (fortified) housing, but few monuments were converted into churches.⁹

Given this background, it is surprising how few churches were extensively marbled. Some churches were nevertheless luxuriously fitted with marble, and fittings such as sarcophagi and capitals survive in plenty.¹⁰ Indeed, France had plenty of Roman sites to plunder.¹¹ Some of them were spectacular, such as the 200-room villa at Montmaurin, near Tarbes.¹² Lapart has suggested that a map of re-used capitals corresponds closely with one of 4th-century luxury villas, many of them still occupied two centuries later.¹³ At Chiragan, the veneer was stripped but the amazing art collection of 200+ statues and busts, perhaps by a

⁷ Duval, Noël, "L'architecture cultuelle," *Naissance des arts chrétiens*, 186–219; see 192ff. for church dimensions: France did not go in for the grand dimensions of the Constantinian surge in Italy—they can't find any 5-nave basilicas in Gaul.

⁸ Heijmans, Marc, "La mise en défense de la Gaule méridionale aux IV^e–VI^e s.," in *Heijmans, Marc, & Guyon, Jean, eds., *Antiquité tardive, haut Moyen Age et premiers temps chrétiens en Gaule méridionale*, in *Gallia* 63 2006, 59–74; deals with Toulouse, Nîmes, Narbonne, Arles, Périgueux.

⁹ Heijmans, Marc, "La place des monuments publics du Haut-Empire dans les villes de la Gaule méridionale durant l'antiquité tardive (IV^e–VI^e s.)," in *Heijmans, & Guyon, *Antiquité tardive*, 25–51: spoliation starts at the end of the 4thC.

¹⁰ For a photographic census cf. the Médiathèque de l'Architecture et du Patrimoine: http://www.culture.gouv.fr/public/mistral/memsmn_fr.

¹¹ Bromwich, James, *The Roman remains of southern France: a guidebook*, (London & New York 1993), passim; and *ibid.*, The Roman remains of northern and eastern France: a guidebook, London & New York, 2003, passim.

¹² Fouet, Georges, *La villa gallo-romaine de Montmaurin (Haut-Garonne)*, (Paris 1983): rebuilt ca.350 AD, including mosaics, paintings and marble veneers.

¹³ Lapart, Jacques, "Chapiteaux de marbre de l'Antiquité tardive et du Haut Moyen Age dans la moyenne vallée de la Garonne (départements du Lot-et-Garonne et de Tarn-et-Garonne)," *Bulletin Archéologique du Comité des Travaux Historiques et Scientifiques. Antiquité, Archéologie classique* 23–24 1987–1988, 85–136, with catalogue of 64 items; see 135–6 "les parements, les pilastres, les chambranles, les colonnes et les chapiteaux de marbre complétaient une décoration commencée au sol par les mosaïques polychromes. Les églises construites à cette période devaient avoir un aspect assez semblable."

team imported specially from Aphrodisias,¹⁴ was ignored.¹⁵ Some new works were imported from Byzantium. At Arles, a two-zone Byzantine marble capital with trellis and rams' heads (first half 6thC) has survived, possibly from the paleochristian basilica on the site of the present S. Trophime.¹⁶ Two Byzantine capitals in an abbey in the Hérault (comparable with examples in Constantinople, and with Haghia Sophia at Thessaloniki) could have been imported in late Antiquity, like those in Arles and Marseilles, or arrived later or much later¹⁷—but the whole question is confused.¹⁸ Also at Arles, S. Hilaire was veneered in the 5th century with imported marble taken from the nearby theatre. But such work could be dangerous: the priest Cyril, who was in the process of demounting the top of a theatre scenae frons and its wall placages, “dum murorum crustas et theatri proscenia celsa deponeret,”¹⁹ was hit by what he was spoliating. Such veneers would have been for the interior of his church or shrine, not the exterior, for structures would be built of stone or brick, and sometimes decorated with terracotta, a fine example of which survives at the Baptistère S. Jean at Poitiers,²⁰ which has a collection of splendid antique columns inside.

If statues were shunned, sarcophagi remained popular, and were re-used for saints, to be visited on pilgrimage. One of these sites, at Saint-Maximin (Var, properly Saint-Maximin-la-Sainte-Baume), has four spectacular vessels in a marbled crypt, the veneering of which was removed in the nineteenth century. This is perhaps 5th century, and arguably always at ground level, housing the Magdalen, Maximin, the

¹⁴ Bergmann, Marianne, “Un ensemble de sculptures de la villa romaine de Chiragan: oeuvre de sculpteurs d'Asie Mineure, en marbre de Saint-Béat?” in Cabanot, Jean, et al., eds., *Les marbres blancs des Pyrénées: approches scientifiques et historiques*, (S. Bertrand des Comminges 1995), 197–206.

¹⁵ Espérandieu, *Recueil*, II.29–93, cats 891–1004. Was the villa owner perhaps following Roman fashions? Claridge, Amanda, *Rome: an Oxford archaeological guide*, (Oxford 1998), 384: mentions two portrait statues of late Roman officials in the Conservatori, ca.400, of Parian marble—high quality, unheard of in Rome at that date, so perhaps carved by Aphrodisian sculptors.

¹⁶ Durand, Jannic, et al., eds., Byzance. *L'art byzantin dans les collections publiques françaises*, (Paris 1992), cat. 7, in Arles Musée lapidaire.

¹⁷ Sodini, Jean-Pierre, “Deux chapiteaux byzantins découverts à l'Abbaye de Valmagne (Hérault),” *Académie des Inscriptions et Belles-Lettres, Comptes Rendus*, April–June 2003, 867–87; see 867–8, 886.

¹⁸ Février, “Le décor sculpté,” 222–3 for imported capitals: he compares a capital with ram's heads in Arles with similar in Ravenna and Venice.

¹⁹ Février, *Le décor sculpté*, 224: second half of 5thC.

²⁰ Maufus, Marie-Christine, “La terre cuite,” *Naissance des arts chrétiens*, 232–7 incl 237 for terracotta decoration on SW façade of Poitiers baptistery.

Holy Innocents, and Saint Sidonius.²¹ Another site, at Saint Seurin in Bordeaux, has several layers of sarcophagi in a large funerary basilica.²² Further sites—Agen, Air-sur-l'Adour, Deols²³—house individual sarcophagi for the local cult. We shall see below how the production of new sarcophagi, as well as the re-use of old vessels, continued in France into the Merovingian period.

Capitals cut from Saint-Béat marble were made well before the Millennium: Cabanot catalogues no fewer than 324 items from Aquitaine alone.²⁴ Then this suddenly stops with the Merovingians, who were very enthusiastic about sarcophagi, but of a stone which is not marble.²⁵ Hence Saint Vigile, Bishop of Auxerre, got a stone sarcophagus. Had he been from Arles and born a few centuries earlier, his tomb would have been of marble, like all Arlesien vessels with Christian motifs,²⁶ and could have been of imported marble like many pagan vessels.²⁷ Had he lived later, his tomb might have been of marble, for Heiricus of Auxerre (d.876) describes shipping antique marbles from Marseille to Auxerre.²⁸ The enthusiasm even for stone vessels was dead by the time of Charlemagne,²⁹ although old vessels continued to be popular for prelates, and newly so for the high-born. Périn suggests the change

²¹ Crook, *Cult of saints*, 52ff.

²² Vicillard-Troickouroff, May, *Les monuments religieux de la Gaule d'après les œuvres de Grégoire de Tours*, (Paris 1976), cat. 29. The church also reused a Merovingian capital in its 11th-century west porch. Cabanot, Jean, & Costedoat, Christine, "Recherches sur l'origine du marbre blanc employé pour les chapiteaux et les sarcophages de l'antiquité tardive et du haut moyen âge conservés dans la région Aquitaine," *Aquitania* 11 1993, 189–232, cats 74–86.

²³ Ibid., cats 2, 3, 94.

²⁴ Cabanot, Jean, "Les chapiteaux de marbre antérieurs à l'époque romane de la région Aquitaine: matériau et typologie," in Cabanot, *Les marbres blancs des Pyrénées*, 223–60.

²⁵ Périn, Patrick, "Les sarcophages mérovingiens," *Naissance des arts chrétiens*, 288–305.

²⁶ Février, Paul-Albert, "Les sarcophages décorés du Midi," *Naissance des arts chrétiens*, 270–87; Immerzeel M., "Quelques remarques sur l'origine des sarcophages paléochrétiens en Provence. Marbre, perçoir et style," *Akten des XII. Internationalen Kongresses für Christliche Archäologie*, (Münster 1995), 855–63.

²⁷ *Gaggadis-Robin, Vassiliki, *Les sarcophages païens du Musée de l'Arles antique*, (Arles 2005): cats 1–9 are from Asia Minor, 10–25 from Attica, 26–53 from Rome, and 54–92 from local workshops.

²⁸ Schlosser, *Schriftquellen*, 193: "Eruderatis aedificorum veterum circunquaque ruinis, ingentem marmorum pretiosorum copiam obtentu partem, oartem pretio congregarunt, oneratisque navibus praeda praeoptabili, victorioso successu coeptorum audacium memorabilem bis duxere triumphum."

²⁹ Lorenz, Claude & Jacqueline, "Les carrières de sarcophages mérovingiens de la basse vallée de l'Anglin," in Benoît, Paul & Braunstein, Philippe, *Mines, carrières et métallurgie dans la France médiévale*, (Paris 1983), 331–45.

must have been societal rather than technological: that is, the vogue for burial in them simply ceased. Elsewhere, production of sarcophagi in Rome and Milan has about stopped by the 5th century, and even the small numbers in Ravenna (35) and Constantinople (80) are attributed to the Imperial presence—and a great contrast with the 1000-plus surviving from earlier centuries.³⁰

In spite of a few Byzantine imports, the choice between marble and stone for church-building—marble and stone were used for secular buildings only after the Millennium³¹—usually depended on the existence of local antiquities. The clergy sometimes built elaborate churches and fine tombs. At Soissons, Saint Drausin's vessel from Notre Dame (now Louvre: end 6th early 7th century), is of white marble, in a city where, "in 1551, rows of columns, rich mosaics, marble and alabaster remains were found: the area was immediately named the "château d'Albâtre."³² Clearly, episcopal sees should be carefully chosen. Until the 9th century marble sarcophagi and veneer appear to have been used exclusively by clerics and saints, the earliest secular use we know being Charlemagne's brother Carloman, who was buried in an antique sarcophagus in 771 in S. Rémi at Rheims.

Generally, antiquities were from close by, such as the blocks and tombstones in the Cathedral at Lyon (which might have been used in the earlier church). There are only sparse indications that marble was transported around France in the Middle Ages, using arteries such as the Rhône for the translocation. Since it is a great waterway flowing conveniently through Arles and with Narbonne reachable by coast-hopping, in the early ninth century antique columns and other material to build the new church of Count Conrad were sought from Marseilles by monks from Saint Germain at Auxerre.³³ If the crypt at Jouarre (Seine-et-Marne) is still to be dated to the end of the seventh

³⁰ Brandenburg, Hugo, "Osservazioni sulla fine della produzione e dell'uso dei sarcofagi a rilievo nella tarda antichità nonché sulla loro decorazione," in Bisconti, Fabrizio, & Brandenburg, Hugo, eds., *Sarcofagi tardoantichi, paleocristiani e altomedievali*, (Vatican City 2004), 1–34; see 15–17.

³¹ Pitté, Dominique, "Architecture civile en pierre, à Rouen, du XI^e au XIII^e siècle. La maison romane," *Archéologie Médiévale* XXIV 1994, 251–99.

³² Bromwich, James, *The Roman remains of northern and eastern France: a guidebook*, (London 2003), 108–9; these might have been baths.

³³ Crook, *Cult of saints*, 78; *Miracula S. Germani auct. Herico, Schlosser, Schriftquellen*, cats 603–4.

century, it nevertheless boasts marble capitals from Saint-Béat and, whether freshly quarried or old,³⁴ they surely arrived here up the rivers. And if the crypt columns and capitals really are to be dated to a twelfth-century rebuild,³⁵ then this indicates a northern flow of re-usable stock. Burgundy was accessible to such imports (an early one, probably from Taranto, is the Vix Krater now at Châtillon sur Seine). So why, apart from the expedition of the monks from Auxerre, is there so little apparent interest in marble in Burgundy,³⁶ even before Bernard of Clairvaux' fulminations in the early 12th century? Settlements by the Rhône with substantial Roman remains, such as Autun³⁷ and, further south in the Isère, Vienne³⁸ showed little interest in old marble (although S. Philibert at Tournus does display earlier squared blocks). Further north, Roman Rheims was probably rich in marble.³⁹ We might surmise that this was used in the predecessor to the present cathedral, destroyed by fire in 1211—although the large church of Saint Rémi, mainly 11th century, displays none. Paris was also a Roman city, but built from the limestone on which the city stands, so most of the

³⁴ Heitz, Carol, *La France pré-romane: archéologie et architecture religieuse du Haut Moyen-Âge, IV^e siècle—un mille*, (Paris 1987), 99 thinks re-used.

³⁵ de Mecquenem, Claude, "Les cryptes de Jouarre (Seine-et-Marne): des indices pour une nouvelle chronologie," *Archéologie Médiévale* 32 2002, 1–29; and NB old capitals in the church of S. Paul.

³⁶ Sapin, Christian, "L'emploi des roches décoratives dans l'architecture du Haut Moyen Âge en Bourgogne: réflexions sur les chapiteaux et colonnes: nouvelles analyses," in Chardron-Picault, P., et al., eds., *Les roches décoratives dans l'architecture antique et du haut Moyen Âge*, (Paris 2004), 317–32: 329 for table of white marble elements in Burgundy—17 in all, of which 7 in Musée Rolin. The museum also has fragments of skyros, cipollino, africano, giallo antico, verde antico and porta santa.

³⁷ *Passio Leudegarii ep. Augustodunensis* I SS rer. Merov. 5, c.2, 285, lin. 9: "Praeterea innuunt eius industriam ecclesiae pavimenta velaque aurea et atrii constructio nova, murorum urbis restauratio, domorum reparatio, et quae erant nimia vetustate consumpta per se reddentecrata, visa videntibus testimonia."

³⁸ Unlike earlier, under Bishop Avitus (c.494–523): *Vita Aviti episcopi Viennensis* Auct. ant. 6, 2, c.V, 180, lin. 16: "Huius labore et industria baptisterii ecclesia musivo et marmore mirabiliter ornata et pavimento venusti operis constructa." According to the notes of J.B. Ward-Perkins (British School at Rome, box xxxv) the Roman odeon at Vienne included pentelic, pavonazzetto, cipollino, carrara, africano, porta santa, green and red porphyry and giallo antico.

³⁹ Hincmarus Remensis, *Vita Remigii episcopi* SS rer. Merov. 3, cap. 29, 326, lin. 6: "Locellum autem argenteum cum corpore ipsius sancti sepulchro marmoreo, in quo ante iacuerat"; Rheims was rich in Roman remains, especially mosaic floors (and, presumably, marble wall veneer): cf. Bromwich, *The Roman remains of northern and eastern France*, 312ff.

marble re-used in mediaeval Paris⁴⁰ had to be imported.⁴¹ This would have been tedious, as we know from the well-documented efforts of Louis XIV to build a marble-rich palace at Versailles. We know that columns were shipped up the Rhône in the Renaissance, but Paris was on a different river system, and his engineers found it easier to ship the products of Pyrenean quarries intended for Versailles by sea from Bordeaux, and then up the Seine.

The Moslems supposedly stripped Narbonne of monoliths during their short occupation,⁴² but we shall see that much remained, though most of it was limestone (there were at least three Roman limestone quarries within 30km). Hence, if we trust the *Gesta Karoli Magni ad Carcassonam et Narbonam*, a 13th-century description of a supposed 9th-century event, much remained around the landscape. Turpin goes out hunting near Narbonne, when he captures a Saracen huntsman: “My dwelling is at Peira Colobra, on a hill where many pieces of marble are to be found,”⁴³ which is glossed as blocks of marble, hence antiquities. Since the point of the Geste is to build the Abbey of ND de la Grasse (Corbières), they build limekilns, and go out looking for marble for the columns—“ut eamus ad marmora, cum quibus pilaria eleuantur” (lines 420ff.) says the Latin, so conceivably they were going to carve the columns. They collect/carve twenty, and make all the altars hollow, for they have a mass of relics (lines 1062ff.: “Thomas discovered the altar of Mary, and showed them the marble support carrying the altar table, which was hollow. They filled it with relics.”). To complete the work,

⁴⁰ Gislemarus, *Vita Droctovei abbatis Parisiensis* SS rer. Merov. 3, cap. 13, 541, lin. 8: “Cuius basilicae opus mirificum describere nobis videtur superfluum, qualiter scilicet distincta fenestris, quibus pretiosissimis marmorum fula columpnis.”

⁴¹ Also further north, at Cambrai, where Gaugericus (Bishop mid-6thC), Acta SS 11 August, “columnas aliunde aportant . . . marmorum crusis parietes vestiunt.” Droctoveus obtained marble shafts for the church now called S. Germain in Paris, commissioned by Childebert c.580, but their source is unknown: ActaSS 10 March. But their fame lasted: cf. the mid-13thC Chroniques de Saint-Denis, on line at <http://elec.enc.sorbonne.fr/chroniqueslatines/>, III.42, relaying Gregory of Tours: “ecclesiam sue civitatis columpnis fulcivit marmoreis, varietate musivib depinxit.”

⁴² Though we should heed the warning of Sénac, Philippe, *Musulmans et Sarrasins dans le sud de la Gaule du VIII^e au XI^e siècle*, (Paris 1980), 18: the invasions “firent ultérieurement l’objet d’un phénomène de récupération historiographique”—with chroniclers who “ont cherché à embellir les faits, modifiant ainsi la réalité”.

⁴³ Schneegans, F.E., ed., *Gesta Karoli Magni ad Carcassonam et Narbonam*, (Halle 1898)—sometimes called the “Philomena”; written earlier 13thC; and cf. Simonnet, Emile, on ND de La Grasse, in *La France Latine, Foi et Littérature au Moyen Age*, 116 1993, on the web at <http://membres.lycos.fr/simonnet>—who provides scholarly apparatus and a French translation of the Occitan; lines 116ff.

Charlemagne donates silk hangings, and a chalice costing 1000 silver marks (which he had thought to take to Aachen) set with an emerald equalled only at Saint-Denis and Haghia Sophia (lines 3069ff.). This account is tangential to Charlemagne's taking columns and marble from Nîmes for his church at Maguelonne,⁴⁴ and to the belief of at least one later writer that he had at least one marble castle destroyed.⁴⁵ The point of relating this story is that the Carolingian period saw a spurt in church-building, and we are usually badly informed about their fittings—but not in this case. Elsewhere, many important monuments have gone—such as La Daurade, and S. Martin de Tours, so that Vergnolle bemoans how little is known about antiquities in France.⁴⁶ But given the penetration of Islamic motifs into French architecture,⁴⁷ we might wonder whether an enhanced taste for marble accompanied them.

What splendid building we know about before the Millennium was usually the work of aristocrats who entered religious orders. Bishop Desiderius' great building campaign 630–56 at Cahors included a church of large squared stones,⁴⁸ but this well-connected cleric went further, "clothing in marbles another church in his diocese, and gifting villas as a 'donatio Ecclesiae.'" These could conceivably have been the source of material, and the text tells us that he used squared blocks to

⁴⁴ Schlosser, *Schriftquellen*, cat. 712, Chron. Moissiacense, c.812. He might also have found materials on-site, for Maguelonne was a Roman settlement.

⁴⁵ Prouteau, Nicolas, "Batir et assiéger au temps des croisades: regards sur l'utilisation du savoir-faire technique de l'autre," in Prouteau, Nicolas, & Senac, Philippe, eds., *Chrétiens et musulmans en Méditerranée médiévale (VIII^e–XII^e siècle): changes et contacts*, (Poitiers 2003), 159–72; see 4, for the meeting between Malrin, the oriental engineer, and Charlemagne, in Raimbert de Paris' 12th-century *La chevalerie Ogier de Danemarche*, ll.6691–719: the engineer will see to the destruction of "this castle of marble": in modern French "Je n'en aurai pas un sou vaillant / Tant que la tour de marbre / qui est plus blanche qu'un hermine / verra ses bases de pierres choir."

⁴⁶ Vergnolle, Eliane, "Le rôle architectural des chapiteaux du haut moyen âge occidental: emplois, paires, groupes," in *Capiteles corintios*, 53–69.

⁴⁷ Goss, Vladimir P., "Western architecture and the world of Islam in the twelfth century," in Goss, Vladimir P., & Bornstein, Christine V., *The meeting of two worlds: cultural exchange between east and west during the period of the Crusades*, (Kalamazoo MI 1996), 361–75.

⁴⁸ Poupardin, René, *La vie de Saint Didier, Evêque de Cahors (630–655)*, (Paris 1900), 19: "Quae sagaciter exstruens multoque inhibi labore desudans, ecclesias, domos, portas, turres murorum ambitu ac quadratorum lapidum compactione munivit [and as for the churches] quantaque fecit, quam numerosa, quam pulchra, quamque nitentia hodie constant melius puto intentum oculos judicare quam nostro sermone expoere." Or SS rer. Merov. 4, c.20, p. 579, lin. 6: "marmoribus vestire, pigmentis lucubrare, auro gemmisque obumbrare, lacunaria ornare, pavimenta componere."

the very top of the wall—so not just for foundations.⁴⁹ Naturally, there would have been plenty of standing antique buildings to act as models. From an important senatorial family, Desiderius also built a church at Albi, which Rouché emphasizes is a “veritable resurrection” of Roman techniques, including stone vaults, colonnaded galleries, and marble pavements. He suggests that, for the prelate, “the Roman Empire was an ideal fused with that of the Universal Church.”⁵⁰ Similarly at Tours, one has the (deliberately misleading?) impression that everything Gregory oversaw was marble,⁵¹ sometimes Parian, perhaps as literary shorthand for “the best.”⁵² Sidonius Apollinaris surely knew his marbles,⁵³ and surely Gregory, who was equally cultured, did as well.

It is the actions of people such as Desiderius which proclaim the importance of marble, even in locations distant from Provence.⁵⁴ For example at Vertou, near Nantes (Loire-Atlantique), Abbot Martin was asked by the Bishop of Nantes (c.600) to found an abbey. Then an enlarged church was started c.840 but never finished, and a third consecrated in 945 (and destroyed in 1793). Even the earliest had contained spectacular marble.⁵⁵ And when the relics of Agricola were translated to Châlons in the 8thC, a marble tomb was built to house them.⁵⁶

⁴⁹ Ibid., 37–8: “quod villas omnes praediaque ecclesiae insigni studio decoraverit...quadris ac dedolatis lapidibus aedificavit, non quidem nostro galli[cano] more, sed sicut antiquorum murorum ambitus magnis quadris extrui solet...a fundamentis usque ad summa fastigia quadris lapidibus opus explevit.”

⁵⁰ Rouché, *L'Aquitaine, des Wisigoths aux Arabes*, 259, 284.

⁵¹ Weidemann, Margarete, *Kulturgeschichte der Merowingerzeit nach den Werken Gregors von Tours*, 2 vols, (Bonn 1982); see II 138 for comments on marble; and cf. Gregory, *Liber Historiarum X* SS rer. Merov. 1, 1, lib. II, c.15, 64: “Hic enim marmorem, qui super sanctum sepulchrum beati Martini habetur...parietes ad altarium opere sarsurio ex multa marmorum genera exornatos habet.”

⁵² *Liber in gloria confessorum* SS rer. Merov. 1, 2, c.34: “In qua multa ex marmore Phario sepulchra sculpta sunt, in quibus nonnulli virorum sanctorum ac mulierum religiosarum quiescunt.” or L-B *England*, 1560, for Ethelrede's Parian tomb at Ely; 1584: Bishop Hugh (d.1254) had a marble tomb, but Parian is not specified.

⁵³ Apollinaris Sidonius, *Epistolarum libri IX* Auct. ant. 8, Lib. II, ep. 2, 23: “iam, si marmora inquiras, non illic quidem Paros Carystos Proconnesos, Phryges Numidae Spartiatæ rupium variatarum posuere crustas; neque per scopulos Aethiopicos et abrupta purpurea genuino fucata conchylio sparsum mihi saxa furfurem mentiuntur.”

⁵⁴ Clemens, Lukas, *Tempora Romanorum constructa. Zur Nutzung und Wahrnehmung antiker Überreste nördlich der Alpen während des Mittelalters*, (Stuttgart 2003); e.g. Metz 21ff., Reims 37ff., Besançon 31ff. The book excludes Provence; 439–52 for bibliography of printed sources; 452–535 for secondary material.

⁵⁵ *Miracula Martini abbatis Vertavensis* SS rer. Merov. 3, cap. 3, 569: “Viderat sane vir Domini Martinus in aula principis supradicti discum marmoreum mirae magnitudinis miraeque venustatis; quem, ut consecraret Christo aram, a principe postulavit.”

⁵⁶ Schlosser, *Schriftquellen*, cat. 629.

One point to bear in mind is that energetic clergy in any period have a good chance of finding useful blocks when they wish to improve their churches. For, by digging near their existing buildings, they find antiquities (often from a previous incarnation of the structure) with which to embellish them. Just as such structures can provide squared building blocks, so uncovering old cemeteries can reveal marble tombs. Gauzlin, an eleventh-century abbot of Fleury, embellishing his nobility with the visible signs of his wisdom, as the text has it, built a tower out of squared stones, and imported marble from “Romanie” (probably Byzantium). This could be the pavement placed in the 16th century in the choir;⁵⁷ and “Primorum vero reclinatoria faginee materie [hetre] compegit tabulis porferetico marmore a foris indutis, delato ab ipsa basilica sancte romane Sedis... Altaria etiam repperiens lapidea, effecit marmorea.”⁵⁸ This was the monastery that had supposedly taken the relics of Benedict from Montecassino c.660. At Sens in 1068, the monks pulled down the church of S. Savinien, which they believed was on the site of several martyrdoms and, in a move which was not too unusual when relics were being sought, wrote a detailed account of what they found. “Que, quia vili scemate construebatur, a fidelibus, honestior ut fieret, diruebatur. Quod dum fieret inventa sunt sepulchra eorum que a nullo mortalium quo in loco essent sciebantur, plena sarcofagis et loculis saxeis, plumbeis, gipseis et sectis atque complanatis lidoriis [i.e. marble panels].”⁵⁹ At Nogent, Guilbert (1053–1124) determined the age and fame of the place not by documents but by the large quantities of sarcophagi he found, some of which he guessed were not Christian because of the grave-goods.⁶⁰

⁵⁷ Fossier, Robert, et al., eds., *La France au temps des premiers capétiens (987–1152)*, (Paris 2005), cat. 191, found in the excavations of 1958–9.

⁵⁸ Bautier, Robert Henri, ed., *Andreas, Monk of Fleury, 11th cent Vie de Gauzlin, abbe de Fleury: Vita Gauzlini abbatis Floriacensis monasterii*, (Paris 1969), 80 para. 44, 81, 134 para. 65.

⁵⁹ Bautier, Robert Henri, et al., ed., *Clarius, Chronique de Saint-Pierre-le-Vif de Sens, dite de Clarius = Chronicon Sancti Petri Vivi Senonensis*, (Paris 1979), 128 and 317ff. Appendix 5; cf. 322: “caeterum in pavimento quod sectis atque complanatis lydoriis [marble panels] interius totum sternebatur, antiquissimae sane litterae in ea qua capita posuerant parte, duabus digestae lineis imprimebantur quae ita quidem, cruce praeposita, sese habent” [and then gives the inscription]; *ibid.*, 324: they also found “Itaque elegantissime composito marmoreo pluteo”—which seems to have been set up in association with an altar, and with the refurbished monument to the martyrs, itself *clausum est, copulatis invicem tabulatus saxis.*”

⁶⁰ Guilbert de Nogent, *Vie par lui-même*, 339ff.; in Guizot, M., *Collection des mémoires relatifs à l'histoire de France*, (Paris 1825), Book II Chap I 474: “L’antiquité a rassemblé une si grande quantité de sarcophages tout autour de la basilique... Mais les sépulcres

After the millennium

Even given the fragmentary nature of the survivals, it is clear that in some cases earlier mediaeval works, perhaps deemed of special interest, were themselves recycled after the Millennium. At Selles-sur-Cher, S. Eustache used mid-sixth-century capitals from the Merovingian basilica atop columns which are conceivably antique.⁶¹ Nevertheless, from surviving buildings stones other than marble were employed, even in Provence, where the monuments reflect a marble shortage. The façade of Saint-Gilles-du-Gard displays little white marble, and that of S. Trophime at Arles has the podium veneer in white marble, the columns in pink—but most of the figures in limestone.⁶² Some of the materials could be from local ruins.⁶³ The Romans quarried limestone 30–35km from Arles, but imported any marble used—hence its sparing use in this church. Also at Arles, the relics of S. Césaire were placed in a mid-4th-century sarcophagus (a child's vessel), and there are several altar-tables dated from the 5th to the 8th–9th century,⁶⁴ though nothing is known about the decoration of the churches that originally held them.

At Saint-Denis, tradition may also have ruled, since it has been suggested that twelfth-century revivalist capitals deliberately imitated Merovingian material in the crypt, and in marble, to reinforce the symbolism and antiquity of the abbey.⁶⁵ Suger, no doubt competing against the size, richness and prestige of Abbot Fulrad's Carolingian

ne sont pas disposés dans l'ordre que nous suivons pour les nôtres... de plus on trouve dans ces sépulcres certains vases, dont les temps chrétiens [475] n'ont jamais eu connaissance. Nous ne pouvons donc croire autre chose si ce n'est que c'étaient des sépultures de Gentils, ou du moins de très-antiques sépulcres de Chrétiens, faits à la manière de ceux des Gentils."

⁶¹ Vicillard-Troickoureff, *Les monuments religieux de la Gaule*, cat. 286.

⁶² Blanc, Annie, "Marbles and decorative stones used in French medieval monuments," in Maniatis, Yannis, et al., eds., *The study of marble and other stones used in antiquity*, (London 1995), 57–63: cf. figs 2 & 6.

⁶³ Mérimée, Prosper, *Notes d'un voyage dans le Midi de la France*, (Paris 1835), 336: 336 at S. Gilles "Il n'y existe actuellement aucun édifice antique, mais plusieurs inscription tumulaires, des fragmens de colonnes et des débris de marbre et de porphyre, qu'on trouve épars dans les environs, prouvent qu'un établissement romain considérable a été long-temps florissant en ce lieu."

⁶⁴ Gaggadis-Robin, Vassiliki, "Le remploi des sarcophages païens en milieu chrétien," in *Guyon, Jean, & Heijmans, Marc, eds., *D'un monde à l'autre. Naissance d'une Chrétienté en Provence IV^e–VI^e siècle*, (Arles 2001), 69–71; and cf. cats 13, 14, 15, 53, 55–9 for marble altar tables.

⁶⁵ Clark, William W., "Merovingian revival acanthus capitals at Saint-Denis," *Acanthus Colloquium*, 345–56.

basilica,⁶⁶ not to mention Eligius' marble-work,⁶⁷ was constantly alert both to the past and the wider world. He questioned travellers to Jerusalem and Constantinople "whether the things here could claim some value in comparison with those there," having a mount made for his porphyry eagle vase "after it had lain idly in a chest for many years." He noted Dagobert's use of "a marvellous variety of marble columns," and sought stock "through different regions of remote districts" before he finally found suitable stone near Pontoise.⁶⁸ The fact that even Suger could not procure marble when he needed it demonstrates that the material was scarce. And Cabanot catalogues only 321 capitals and sarcophagi in the whole of Aquitaine, although some of the latter (such as those in Bordeaux) are prestige items.⁶⁹ In this context of scarcity, is it necessarily the case that the re-use of the verso of pagan panels in a church⁷⁰ has any meaning? At Autun, with plenty of (limestone) antique remains, marble was also scarce, and was used neither for capitals nor for tympana, for the famous Eve is in limestone. The use of marble was restricted to the exquisite mausoleum of S. Lazare from the eponymous church (1140–50), fragments of which (510 survive) are now in the Musée Rolin.⁷¹ Reveyron suggests this tomb might have started a fashion for marble inlay to be seen at Vienne and Lyon.⁷² Yet even

⁶⁶ Heitz, *La France pré-romane*, 135ff.: 245 feet long, a nave 25m high, 101 windows, with 50 big and 35 smaller columns forming 45 arcades, the whole lit by 1250 oil lamps. Wyss, Michael, ed., *Atlas historique de Saint-Denis*, (Paris 1996), 33f. for Fulrad's church, and 50ff. for Suger.

⁶⁷ The Life of St. Eligius, 588–660, from MGH SS Mer. 4, 669–742: at <http://www.fordham.edu/halsall/basis/eligius.html>: "Eligius fabricated a mausoleum for the holy martyr Denis in the city of Paris with a wonderful marble ciborium over it marvelously decorated with gold and gems."

⁶⁸ Panofsky-Soergel, G., ed., *Abbot Suger on the Abbey Church of St.-Denis and its art treasures* (Princeton 1978): De Admin XXXIII, XXXIVA, De consecratione II.

⁶⁹ Cabanot, Jean, & Costedoat, Christine, "Recherches sur l'origine du marbre blanc employé pour les chapiteaux et les sarcophages de l'antiquité tardive et du haut moyen âge conservés dans la région Aquitaine," *Aquitania* 11 1993, 189–232; 205ff. for catalogue.

⁷⁰ Brown, Peter Scott, "As excrement to sacrament: The dissimulated pagan idol of Ste-Marie d'Oloron," *Art Bulletin* 87.4 2005, 571–88.

⁷¹ Pinette, Mathieu, & Recht, Roland, eds., *Le Tombeau de Saint Lazare et la sculpture romane à Autun après Gisilbertus*, (Autun 1985); 131 a procès verbal of 1482 notes that the tomb was in *modum ecclesie ex marmoreis lapidibus tam nigris quam albis ac etiam porphyrinis constructum et sectum*.

⁷² *Reveyron, Nicolas, "Décors d'incrustation et tendances antiquisantes dans l'architecture romane de la moyenne vallée du Rhône," *Gesta* 39.1 2000, 28–42: Saint André le Bas and the old cathedral of Saint-Maurice in Vienne, and Cathedral of Saint Jean Baptiste in Lyon. 35: The use of marble, he claims, "rappelle intentionnellement

here, the main architectural members, as well as the majority of the small (c.1.26m) figures—the Christ is an exception—are limestone, and it is only the highly decorated pilasters which are of marble. Indeed, whole cloisters are limestone where one might have expected marble to make a showing—such as at Saint-Guilhem-le-Désert.⁷³

Problems with Glaber's "White Mantle of Churches"

Although there is plenty of evidence in France (as in Italy) for substantial church-building between late Antiquity and the Millennium, it is only from about 1000 AD that we can assess building characteristics from surviving examples, with a veritable explosion of building.⁷⁴ Before then, although there are accounts of a few big churches with marble columns, little survived the Romanesque makeovers. Barral I Altet's *Le paysage monumental de la France autour de l'an Mil* offers a fascinating tour d'horizon, with individual bibliographies; but the whole demonstrates just how little with monumental aspirations survives from that period.⁷⁵ The new architecture came from monastic reform, as it had done under Charlemagne, and it was truly the monastic revival which produced the churches. Glaber, who worked at Dijon and Cluny, and concluded his Chronicle in 1044, has been as oversold as Charlemagne. Hence in the desert of explicit contemporary references to architecture, historians fall upon Rodolfus Glaber with considerably too much enthusiasm, even lauding him for his "sense of the past,"⁷⁶ and sometimes give more weight to his words than they might reasonably bear. Glaber writes: "Just before the third year after the millennium, throughout the whole world, but most especially in Italy and Gaul, men began to reconstruct churches, although for the most part the existing ones were

le passe antique des villes et des eglises locales. Tire des ruines romaines de Vienne ou de Lyon, le marbre est, en effet, une citation directe de l'architecture antique, une sorte de relique monumentale."

⁷³ Labrosse, Dominique, "Le cloître de Saint-Guilhem-le-Désert et son évolution, du XI^e au XIV^e siècle," *Archéologie du Midi Médiéval* 20 2002, 1–36. It does have a marble tomb-slab, for Bertrand de Maze, abbot 1170–89.

⁷⁴ Parisse, Michel, ed., *Atlas de la France de l'an mil. Etat de nos connaissances*, (Paris 1994), with excellent maps by region and type—all showing the slow move from fortified centres to towns with flourishing economies.

⁷⁵ Barral I Altet, Xavier, ed., *Le paysage monumental de la France autour de l'an Mil, avec un appendice: Catalogne*, (Paris 1987).

⁷⁶ Leyser, Conrad, "Hidden revolution: monastic culture and the making of Europe, 300–1100," *Rivista di Storia del Cristianesimo* 3 2005, 311–29; see 328.

properly built and not in the least unworthy. But it seemed as though each Christian community were aiming to surpass all other in the splendour of construction. It was as if the whole world were shaking itself free, shrugging off the burden of the past, and cladding itself everywhere in a white mantle of churches. Almost all the episcopal churches and those of monasteries dedicated to various saints, and little village chapels, were rebuilt better than before by the faithful." As an example, he cites Hervé's S. Martin at Tours, who "first demolished and then rebuilt it with great labour, all within his own lifetime"—and "he conceived the idea that the whole fabric of the church entrusted to his care should be enlarged and made more lofty." Glaber connects this upsurge loosely with "the relics of many saints were revealed by various signs where they had long been hidden." He does not do so explicitly as cause-and-effect, but he does mention valuables found while digging foundations.⁷⁷ And it is certainly true that the 11thC population explosion caused one in relic hunting as well: "it resulted in part from the growth of population across Western Europe with its concomitant need for new churches, and in part from the competition between cult centers for the enormously increasing pilgrimage traffic."⁷⁸

Glaber's statement of the revival is too early, and this sits badly with his keen eye and his broad knowledge of the world beyond his own backyard (of the Aghlabids of Tunisia, for example, and also the mad Al-Hakim's mother being a Christian).⁷⁹ What he writes smacks of a biblically-oriented topos. Indeed, Nichols interprets the "white mantle" as a reference to Christ's Transfiguration (Mark 9:2), noting that "a primary purpose for writing history lay in demonstrating the extent to which the physical and social world conformed to the scriptural model."⁸⁰ For Umberto Eco, similarly, the chronicler was writing more as a poet than an historian, but explicitly about a rivalry of power and prestige among various city-states: "he was talking about new architectural techniques and of an economic resurgence, for you cannot build such churches

⁷⁷ France, John, ed., *Glaber, Rodolfus, The five books of the histories*, (Oxford 1989), III.13, 14, 15, 19.

⁷⁸ Geary, Patrick. "Sacred commodities: the circulation of medieval relics," in Appadurai, Arjun, ed., *The Social Life of Things*, (New York 1986), 169–191: see 176.

⁷⁹ Cf. Chanteux, H., "Les origines clunisiennes du thème de la destruction de Rome," *Cluny (Travaux du Congrès Art, Histoire, Liturgie)*, (Dijon 1950), 144–54—says Glaber knew of the Saracen attack on Luni in 1016.

⁸⁰ Nichols, Stephen G., *Romanesque signs: early medieval narrative and iconography*, (New Haven CT 1983), 1.

without wealth behind you; he was talking about churches conceived in dimensions larger than their predecessors—churches capable of accommodating a growing population.”⁸¹ For Arnaldi, the account is merely vague Millenarianism.⁸²

As for the whiteness, if he has specific buildings in mind, this must more often refer to whitewash or limestone or just newly-cut stone, for nowhere in his account does he mention marble. Carolyn Malone places a two-way bet by having it refer not only to light but also to S. Bénigne at Dijon as a version of the Pantheon, which he would have seen on his trip to Rome in 1027.⁸³ The tomb of the saint there, Carolingian or earlier, was already decorated with marble columns⁸⁴—and supposedly with 121 columns in all.⁸⁵ Given Glaber’s breadth of view, and a dedication relating the Dijon rotunda to the Pantheon,⁸⁶ there is nothing unlikely about this suggestion,⁸⁷ which might strengthen somewhat the more is learned about lighting in pre-Millennium churches.

How many structures in Glaber’s “white mantle” were actually marble? We must always bear in mind structures which were marbled, and of which we know little—such as 6th-century Byzantine capitals found near Luchon (Pyrenees), which Sodini connects⁸⁸ with specimens at Porec and Kairouan—an instance, if he is correct, of the import of fine foreign materials into Romanesque France. Hearn notes that the practice of making major furnishings in marble not stone grew widespread after

⁸¹ Eco, Umberto, “It was the bean that set the pulses racing,” at http://www.themodernword.com/eco/eco_bean.html.

⁸² Arnaldi, Girolamo, “Rivistando le Storie di Rodolfo il Glabro,” in Lepelley, Claude, & Sot, Michel, eds., *Haut Moyen-Age: culture, éducation et société: études offertes à Pierre Riché*, (Nanterre 1990), 547–54.

⁸³ Malone, Carolyn, “St. Bénigne at Dijon as exemplum of Glaber’s metaphoric ‘white mantle,’” in Hiscock, Nigel, ed., *The white mantle of churches*, 161–79; see 169.

⁸⁴ Schlosser, *Schriftquellen*, cat. 936.

⁸⁵ Keller, Lothar, “Die Abteikirche Saint-Benigne in Dijon. Untersuchung der Baubeschreibung aus dem 11. Jahrhundert,” in Binding, Guenther, & Speer, Andreas, *Mittelalterliches Künstlerleben nach Quellen des 11. bis 13. Jahrhunderts*, (Stuttgart 1994), 310–24, especially 314ff.

⁸⁶ Malone, Carolyn Marino, “The rotunda of Sancta Maria in Dijon as ‘ostwerk,’” *Speculum* 75.2 April 2000, 285–317; see 285, 306.

⁸⁷ Toker, Franklin, “A baptistery beneath the baptistery of Florence,” *AB* 58.2 June 1976, 159: “extraordinary parallels between the Baptistery and the Pantheon... already been emphasised by mediaeval and Renaissance authors”.

⁸⁸ Durand, Jannic, et al., eds., *Byzance. L’art byzantin dans les collections publiques françaises*, (Paris 1992), (marble entries by J.-P. Sodini), cat. 9: two-zone capital, 1st half 6thC with palmettes and eagles, now Louvre, which Sodini associates with 12 similar, also found near Luchon “Ils proviendraient d’un cloître de Muret qui est inconnu par ailleurs.”

the Millennium, and he attributes this precisely to an antique revival of associations with the Roman past.⁸⁹ Unlike so many authors, Hearn actually indicates where works are marble or limestone, and he sees a clear link between the Roman technique of ashlar masonry, and a deliberate revival in eleventh-century France.⁹⁰ But the quantity of marble work, even in prestigious churches such as S. Sernin (Toulouse) and Moissac, is small. The former has a large marble table-altar (dated 1096), and seven marble reliefs now in the ambulatory (of unknown original purpose, and perhaps cut from columns).⁹¹ The tympanum, lintel and spandrel figures of the Porte Miégeville (c.1110/c.1115) are also marble. The lintel is constructed of three pieces cut from one or more reworked sarcophagi (or from an antique entablature block?), and the large figures of Peter and James are cut from large, single slabs of marble, presumably ancient.⁹² These are so deep that one wonders whether a large and rounded sarcophagus-lid (similar to that of S. Andoche, at Saulieu), might have served. By contrast, the marble panel from the west façade of S. Sernin, now in the Musée des Augustins, is too broad for such a source. The splendid capitals in the cloister of ND de la Daurade were all limestone, as were those from the Cathedral of S. Etienne—so the marble capitals from Saint-Paul-Serge were unusual (all Toulouse, Musée des Augustins). Moissac has some marble sculpture, and liturgical furniture echoing early Christian models,⁹³ which often seem to have been sarcophagi. This explains the clear revival of funerary motifs in Romanesque sculpture, such as the angels holding a clipeate bust of Christ on the altar-table in S. Sernin. An even better example is at Saint-Génis-des-Fontaines, in the Pyrenees, with its marble lintel with Christ and six apostles, of 1020/1: was it fresh-quarried?⁹⁴ Here two angels support Christ in a central mandorla, while an arcade, horseshoe style, holds 3 apostles either side, and with an inscription the whole length of the block, which is then framed by a

⁸⁹ Hearn, Millard Fillmore, response in *Art Bulletin* 67.2 June 1985, 342–4, to Sauerländer's review of his *Romanesque sculpture*.

⁹⁰ Hearn, *Romanesque sculpture*, 54.

⁹¹ Barral i Altet, Xavier, "Le destin médiéval des sarcophages d'Aquitaine," in Duval, Noël, ed., *Antiquité tardive* 1 1993, 161–4.

⁹² Testard, Olivier, "La Porte Miégeville de Saint Sernin de Toulouse: proposition d'analyse iconographique," *Mém. Soc. Archéologique du Midi de la France* LXIV 2004, 25–61; see 31f., 39.

⁹³ Metzger, Catherine, "Le mobilier liturgique," *Naissance des arts chrétiens*, 256–67; 264–5 for High Altar table of S. Sernin, in marble, signed Bernard Gilduin and dated 1096.

⁹⁴ Illus. Hearn, *Romanesque sculpture*, fig. 5.

running floral pattern border. The source is surely a columnar Christian sarcophagus with central supported clipeate image. Indeed, a visit to the cloister at Moissac drives home the likely shortage of marble, and just how much it was prized. Here the reliefs on the corner piers are thin marble slabs, hence producing flattened figures. They are probably re-cycled sarcophagi, which shows the value of such vessels at this period⁹⁵—and the 6th-century (?) sarcophagus still inside the church (re-used by Abbé Raymond de Montpézat in 1245), with flat vegetal decoration, is just the type and size for such a task. The capitals in the cloister are limestone—another index of shortage, but in the south porch (which itself displays two different kinds of limestone), the great figures and the lintel itself (c.1115?) are of marble.⁹⁶

Another direct reference to architecture and making a convenient pair to Glaber is equally over-interpreted. Bernard of Clairvaux's "Apologia" of c.1127 denounces the great size of churches, their costly refinements, and the distracting artworks showing lions, fighting knights, hunters, and various miraculous beasts. "So many and marvelous are the varieties of shapes on every hand that we are tempted to read in the marble than in our books, and to spend the whole day wondering at these things rather than meditating the law of God. For God's sake, if men are not ashamed of these follies, why at least do they not shrink from the expense?"⁹⁷ This could be a variation on the theme of the wickedness and cost of marble luxury current since Pliny, but great care is needed here, because there are no cloister sculptures in Burgundy made of marble. One possibility is that he was criticizing illuminations

⁹⁵ Ibid., 128: "it is likely that the corner reliefs are carved on the back and bottom of a sarcophagus, where the surfaces would have been least cut, and that the intermediate reliefs are carved on the back, bottom and front, the former front reliefs having been shaved off."

⁹⁶ There are also influences from Islamic architecture in Iberia to buildings such as this—but these are in intricacies of surface decoration, and not in the use of marble, let alone mosaic. Cf. Mâle, Emile, "Les influences arabes dans l'art roman," *Revue des Deux Mondes*, 18 1933, 311–43; revised and reprinted, translated, as "The Great Mosque at Córdoba and the churches of Auvergne and Velay," *Art & Artists of the Middle Ages*, (Redding Ridge CT 1986), 30–78.

⁹⁷ Rudolph, Conrad, *The 'things of greater importance': Bernard of Clairvaux's Apologia and the medieval attitude toward art*, (Philadelphia 1990); good summary of Bernard's attitude in Fergusson, Peter, in *Speculum* 66.4 Oct. 1991, 944–46: notes that Bernard in Apologia 28 "reluctantly accepted architecture, monumental painting, and sculpture as tolerable for monasteries, but he criticized immoderation in gold-covered relics, images of saints, coronae chandeliers, candelabra, and floor images."

in manuscripts,⁹⁸ another that he saw such works on his travels, and the third that the reference to “marble” is generic, or a poetic synonym, and simply means “works in stone.” His crucial points are that beauty distracts from the sacred (chap 28: “et magis mirantur pulchra, quam venerantur sacra”), and that artworks take the place of books (chap 29: “ut magis legere libeat in marmoribus, quam in codicibus”). With both Glaber and Bernard, therefore, we should perhaps interpret their words symbolically, rather than literally.

A different interpretation was needed for churches in areas where marble was prized but not available. Here recourse is had to paint which imitates marble. Hence at S. Hilaire in Poitiers we find capitals as well as columns painted to look like marble or alabaster, as we do in S. Pierre at Chauvigny (Vienne). At Saint-Savin-sur-Gartempe, the columns are even done in mirrored-veneer patterns. This is of course nonsensical, but perhaps a misunderstanding gained—in an inversion of Bernard of Clairvaux’s fulminations—by reading about marble in books, in other words by looking at and misunderstanding manuscript illuminations.⁹⁹

Christian Spain

We are badly informed about Early Christian Spain, and about early mosques. And unfortunately there are dating problems with much Visigothic architecture, meaning that the sequences and connections suggested below are not accepted by all scholars.¹⁰⁰ Earlier Visigothic

⁹⁸ Bredero, Adriaan Hendrik, *Bernard of Clairvaux: between cult and history*, (Edinburgh 1996), 205. He suggests such illumination stopped c.1134, when Rainald du Bar, originally from Clairvaux, became abbot.

⁹⁹ Camus, Marie Thérèse, “Capitelli e colonne dipinti: antecedente dell’XI secolo nella Francia dell’Ovest,” *Wiligelmo e Lanfranco nell’Europa romanica*, (Modena 1989), 141–9. Allag, Claudine, & Monier, Florence, “La représentation des roches décoratives dans la peinture murale romaine,” in Chardron-Picault, P., et al., eds., *Les roches décoratives dans l’architecture antique et du haut Moyen Âge*, (Paris 2004), 355–68.

¹⁰⁰ *Zoreda, Luis Caballero, “Observations on historiography and change from the sixth to tenth centuries in the north and west of the Iberian Peninsula,” in Diaz-Andreu, Margarita, & Keay, Simon, eds., *The archaeology of Iberia: the dynamics of change*, (London 1997), 235–64 for succinct overview of the dating problems on Christian buildings; especially fig. 13.1 and its annotations, and 259 for importance of Sassanid and Roman influence.

sculptors may have influenced Muslim techniques.¹⁰¹ For the same reasons, Córdoba's churches could have been splendid, but we have no information beyond the ninth-century Eulogius, Book II of whose *Memoriale Sanctorum* is called "On the destruction of the basilicas," and looks back from the conflicts of his own day to a time when Christianity was "radiant in wonderfully constructed basilicas," without being any more specific.¹⁰²

As in France, the majority of surviving Visigothic churches as well as Mozarabic ones was tiny, so that a dozen together would fit within the final circumference of the enormous Mezquita at Córdoba. In spite of the supposed Visigothic church on the site, this takes its inspiration largely from Damascus, and not from local architecture, although some of its columns probably came from churches in the area. Literary accounts are not much help. The *Chronicle of 754* writes that in 674 Wamba "renovated the city of Toledo with wonderful and elegant workmanship. Versifying on the sculpted work, he completed it by inscribing epigrams on the bright and shining marble: 'The renowned king Wamba erected this city with the help of God to increase the honour and fame of his people.'"¹⁰³ Unfortunately, little is known archaeologically about the city, although Luis Caballero's excavation of the nearby Santa María de Melque provides a Christian and Muslim-influenced context.¹⁰⁴ The church of S. María in the town of Wamba suggests that the "shining marble" might have been an exaggeration: there are certainly marble altar supports, and a marble pilaster—but the chancel screen was limestone (all Museo di Valladolid).

Ancient materials were certainly used in the Visigothic period, but neither consistently nor in large quantities.¹⁰⁵ Nor was marble de rigueur

¹⁰¹ Terrasse, Henri, "L'Espagne Musulmane et l'héritage wisigothique," *Études d'orientalisme dédiées à la mémoire de Lévi-Provençal*, (Paris 1962), 757–66.

¹⁰² Dodds, Jerrilynn, *Architecture and Ideology in Early Medieval Spain*, (University Park PA 1994), 64.

¹⁰³ Cf. Wolf, Kenneth B., ed., *Conquerors and chroniclers of early-medieval Spain*, (Liverpool 1990), 125. The account is by Rodericus Ximenius de Rada, Archbishop of Toledo (1208–47), *Historia* 3.12; a church was built to Mary "ex lapidibus et columnis marmoreis" (4.8), and S. Jacopo was repaired with similar materials (4.15). Al-Mansur (976–1002) supposedly destroyed to the very foundations the city's gates "opere marmoreo pulcre constructas" (5.15). He took Santiago's bells back to Córdoba in 997, so did he make any use of the marble from Toledo?

¹⁰⁴ Garen, Sally, "Santa María de Melque and Church Construction under Muslim Rule," *JSAH* LI 1992, 288–305.

¹⁰⁵ Schlunk, Helmut, & Hauschild, Theodor, *Die Denkmäler der frühchristlichen und westgotischen Zeit*, (Mainz 1978), 165 & Taf 60a for limestone (marble-like) slab with twisted columns from Basilica in Barcelona: late 6th/early 7thC.

even for the often splendid churches on the étapes of the pilgrimage route to Santiago, itself a dour granite monument with only the occasional sparkle of marble.¹⁰⁶ The tombs of saints (such as that of S. Vincente at Avila) and even tympana (S. Isidro, León) were limestone, and painted. Exceptions might have been Roman sites such as Mérida, where four two-metre marble pillars of the 6th–7thC survive in the Archaeological Museum, having been re-used in the entrance to the cistern of the Alcazaba.¹⁰⁷ Location was obviously important, for we find many antiquities re-used in the Christian buildings of Córdoba, perhaps following the example of the Mezquita.¹⁰⁸

Royal patronage was the driving force behind some important buildings which, if they survive, have lost most of their fittings. Recceswinth built S. Juan de Baños in 661 with ancient columns and a dedication inscription in marble. Santa Comba de Banda (Orense, 7th century) used old columns of black marble; S. Pedro de la Nave (Zamora, 680/711?) surmounts its old columns with vigorously carved capitals, and S. Fructuoso de Montelios (Braga, by 665) employs Roman-influenced decoration. After the Moslem conquest of 711, monumental building continued, but we know about most Christian works from fleeting mentions not actual remains. Of the vigorous construction campaign of Alfonso I (739–57), mentioned in the *Crónica de Sebastián* (compiled for Alfonso the Great, d.910), nothing has survived, so we are entitled to wonder whether this is yet another topos, hymning what monarchs should do—and did do, in later centuries. We can, however, suspect plenty of marble in many of the churches, such as the church of Santiago, excavation of which has revealed marble work. The nearby S. Lucía del Trampal (7th century, Alcuéscar, Cáceres), has also lost most of its marble, but once had plenty—aided perhaps by its location on a network of Roman roads between Cáceres and Mérida, and with Roman and Visigothic remains nearby.¹⁰⁹

¹⁰⁶ Cf. Arte Prerománico Español at http://logotur.e.telefonica.net/arterural/base/prerom_cab.html.

¹⁰⁷ Schlunk & Hauschild, *Die Denkmäler*, 189 & Taf 86.

¹⁰⁸ *Ángeles Jordano Barbudo, Maria, *Arquitectura medieval cristiana en Córdoba desde la reconquista al inicio del Renacimiento*, (Córdoba 1996): 4–20 & figs 1–4 for convent of S. Clara; 2–71 & figs 13–15 for the Royal Convent of S. Pablo; 21–7 & figs 88–93 for Las Capuchinas; 28–32 & figs 96–7 for S. Cruz. For the Mezquita itself, 155–67 & fig. 116: private chapels were added in the Mezquita, mostly along the S wall, uniformly out one aisle's width, so that the re-used columns were on the centre-line with each chapel's altar. The larger chapels—Capilla Real and de Villa-Viciosa—took up one aisle's width and four intercolumniations. The mihrab became the Capilla de S. Pedro.

¹⁰⁹ Caballero Zoreda, Luis, & Fernando Sáez Lara, *La iglesia mozárabe de Santa Lucía*

A century of prestigious marble-rich building is behind the monuments of three monarchs in particular. The first is King Silo of the Asturias (774–83), whose Santianes de Pravia, the palace church, had marble altar and chancel screens, and an acrostic marble inscription reading SILO PRINCEPS FECIT—all perhaps with materials from the nearby early mediaeval cemetery. The second is Alfonso II “El Casto” of the Asturias (king 791–842). In Oviedo he built S. Salvador, S. Maria and S. Tirso, as well as S. Julián de los Prados. Tantalizing literary glimpses survive of how these churches might have looked, “cum arcis atque columnis marmoreis auro argentoque diligenter ornauit,” as well as a palace flanked by a gallery, and supported by an arcade.¹¹⁰ The third is Ramiro I de Asturias (842–50), who built Santa María de Naranco (a summer palace converted into a church, with Roman and Byzantine influences), S. Cristina de Lena and S. Miguel de Lillo. He built solidly, “many buildings of granite and marble without wood and with arches on the side of Mt Naranco.”¹¹¹ According to the *Chronicle of Alfonso III*, in 850 Ramiro’s son Ordoño “built walls around cities deserted from antiquity, namely: León, Astorga, Tuy and Amaya. He built their gates on high ground”.¹¹² This would have put his builders in close contact with antiquities, and hence the opportunity for additional materials—but it is impossible to chart the consequences, if any, of such population expansion.

The architects of such monarchs probably had a good knowledge of European architecture, and a good case has been made that the decoration of such buildings owes much to motifs from the East, including Constantinople and Jerusalem.¹¹³ This is the more likely since such influences together with the extensive use of antique material appears in Catalonia as well,¹¹⁴ where it begins as early as the 3rd century and

del Trampal, Alcuéscar (Cáceres): arqueología y arquitectura, (Mérida 1999), 77–9 for reconstructions, 119–50 for its marble decoration, including re-use (152). See also www.santaluciadeltrampal.com.

¹¹⁰ The Monk of Albelda (883); cf. Dodds, *Architecture and Ideology*, 30–2.

¹¹¹ Wolf, Kenneth B., ed., *Conquerors and chroniclers of early-medieval Spain*, (Liverpool 1990), 174, in the *Chronicle of Alfonso III*.

¹¹² Wolf, *Conquerors and chroniclers*, 175.

¹¹³ Theocharis, Yiannis, “Frühmittelalterliche Architekturdekoration in Spanien: Charakteristik einer “Koine” im Mittelmeerraum,” *Cahiers Archéologiques* 51 2003–4, 29–44.

¹¹⁴ Puig Y. Cadafalch, J., et al., *L’arquitectura romànica a Catalunya*, I (Barcelona 1909): S. Miguel de Tarrassa (fig. 385ff.), S. Pedro de Roda (figs 498–9), S. Miquel, Barcelona (fig. 398: Byzantine-style basket capital). Gaillard, Georges, “La Catalogne entre l’art de Cordoue et l’art roman,” *Studia Islamica* VI 1956, 19–35; e.g. plate II for 10thC capitals

is extensive in the following one.¹¹⁵ But marble was in short supply: at S. Pedro de Roda, for example, the very Roman barrel vault is supported on superposed columns, the lower ones on high podia—surely because nothing larger was available, or perhaps because the aesthetic horizons were different.¹¹⁶

These monarchs probably did not transport large quantities of marble over great distances to decorate their constructions. For they and their successors generally use marble sparsely because it can never have been abundant in their region of Spain. At S. Pedro de la Nave (893–902?) only the columns are marble, while at S. Miguel de Lillo, marble is reserved for the apse columns and their decorated bases,¹¹⁷ and with elaborate stone tracery windows. But at S. Miguel de Escalada (León, 913,¹¹⁸ by the Asturian King García), founded by monks from Córdoba, capitals and columns are marble, and the feel is very much that of the soon-to-be-built Madinat Al-Zahra (Córdoba, 936ff.). Most of these works show eastern Mediterranean connections. Puigh i Cadafalch writes of Moslem/Syrian dimensions,¹¹⁹ a position illustrated by Caballero Zoreda who believes that, just like the buildings themselves, much of the decorative work in “Visigothic” churches (S. Juan de Baños, Quintanilla, S. Pedro de la Nave, etc.) could be later than the Moslem conquest of 711—and therefore the more easily influenced by Syrian Umayyad work.¹²⁰ The problem is complicated, of course, by Visigothic

at Cornelle de Llobregat which are clearly Cordovan in inspiration; 33 for influence of Madinat al-Zahra on the marble altar tables of the Pyrenees (first inscribed 1020). Hoppe, Jean Marie, “Le corpus de la sculpture visigothique. Libre parcours et essai d’interprétation,” in Caballero Zoreda, L., & Mateos Cruz, P., eds., *Visigodos y Omeyas. Un debate entre la Antigüedad tardía y la Alta Edad Media*, (Madrid 2000), 307–55; to which Real, Manuel Luis, “Portugal: cultura visigoda e cultura moçárabe,” in *ibid.*, 21–75 adds comparanda of decorative motifs from Pomposa, Baouit, Konya, Khirbat Al-Mafjar, and Constantinople.

¹¹⁵ Mayer, Marcos, Alvarez, Aurelio, & Rodá, Isabel, “Los materiales lapídeos reaprovechados en construcciones medievales en Cataluña. La ciudad de Barcelona y su entorno,” *Artistes, artisans et production artistique au Moyen Age II*, (Paris 1987), 529–58; see 533–6.

¹¹⁶ Vergnolle, “Le rôle architectural des chapiteaux du haut moyen âge occidental,” 63–4 & plate V.

¹¹⁷ Frischauer, Alma Stephanie, *Altspanischer Kirchenbau*, (Berlin 1930) for survey.

¹¹⁸ The portico is dated 930: was the delay needed to collect its 12 marble shafts, capitals and bases?

¹¹⁹ Puigh i Cadafalch, J., *L’art wisigothique et ses survivances. Recherches sur les origines et le développement de l’art en France et en Espagne du IV^e au XII^e siècle*, (Paris 1961), 143: “Les moines mozarabes, formés dans un milieu musulman, ont apporté au centre de l’Espagne des idées conçues dans les déserts de l’Orient.”

¹²⁰ Caballero Zoreda, Luis, “Un canal de transmisión de lo clásico en la Alta Edad

marble copies and imitations of Roman capitals in various centres,¹²¹ because Muslim craftsmen were doing likewise. Indeed, did the Asturias import craftsmen (as Córdoba did), which would help account for the range of influences? Georges Gaillard believes the Muslims taught the Christians how to cut stone and marble for Ripoll and Cuxa (of which examples are in the Louvre),¹²² and documents a sculptor from Córdoba working at Ripoll.¹²³ Indeed, Córdoba (with its new-quarried marble and startlingly original capital designs) would be the nearest place to look for expertise.

Two monuments stand out, the first because it retains marble furniture, the second for its frescoes, some of which imitate marble. S. Cristina de Lena (c.850) has marble columns and transennae, and a triple-arched marble chancel screen. The most splendid vision of a Roman marbled tradition is provided by the astonishing frescoes in the second monument, Alfonso II's S. Julián de los Prados (Oviedo), which Dodds correctly compares with the Gospel of S. Médard of Soissons, and with similar architecture in part of the Domus Aurea.¹²⁴ This is the kind of opus sectile marble-into-fresco extravaganza that the Carolingians never managed, nor yet the simpler patterns in S. Vitale, Ravenna. It is done at Oviedo with much more verve and knowledge than either the architecture or the frescoes in the Torhalle at Lorsch, although perhaps the frescoes we know existed at Ingelheim would correct this statement. Without knowledge of the context, S. Julián would at first seem an example of unrequited lust for marble—until its position less than one kilometre from the marble-rich palace is plotted. Presum-

Media española: arquitectura y escultura de influjo omeya en la Península Ibérica entre mediados del siglo VIII e inicios del siglo X (II)," *Al-Qantara*, 15,2 1994, 321–48; tries to relate decorative reliefs and capitals in the peninsula to work at Khirbat Al-Mafjar; and 16.1 1995, 107–24; cf. 107: such churches' use of Roman materials "lo que indica que trabajan en ellas canteros que saben su oficio, pero que no poseen medios para conseguir la piedra cortada de cantera." Caballero Zoreda, & Mateos Cruz, *Visigodos y Omeyas*: a leitmotif of this conference is the dating of Visigothic churches, which is clearly far from being resolved.

¹²¹ Hauschild, Theodor, "Copias e derivados del capitel romano en época visigoda," *Capiteles corintios*, 27–36.

¹²² Fossier, *La France au temps des premiers capétiens*, cat. 179: a capital in pink-and-green Villefranche-de-Conflent marble from S. Michel de Cuxa, before 1137, and one in red marble.

¹²³ Gaillard, "La Catalogne entre l'art de Cordoue et l'art roman:" see 33–4; 22. Gerbert, the future Sylvester II, studied in Catalonia in 967–70, and one source even says he went to study in Córdoba.

¹²⁴ Dodds, *Architecture and Ideology*, plate 24 for reconstruction of the frescoes of San Julian de los Prados; plate 32 for the Gospel of S. Medard of Soissons, and plate 28 for the Domus Aurea.

ably this was the source of marble fittings long since disappeared from the church. The exploration of the Roman and early Christian site at nearby Veranes¹²⁵ might also help clarify the inspirational context for this church. Manzanares Rodríguez reminds us that the royal palace was deeded (“con sus palacios, baños y triclinios”) to the Cathedral of Oviedo by Alfonso II the Great in 897.¹²⁶ This was, in other words, a church-and-palace complex arguably no less sophisticated if certainly much smaller than the mosque-and-palace complexes in Jerusalem or Córdoba. The frescoes in S. Julián conjured up a vision of marbled beauty, where luxurious opus sectile and sheet-veneered marble walls were surely addressed to cognoscenti who would realize their connections with antique illusionistic fresco painting,¹²⁷ or even opus sectile marble walls. The vision was in fresco precisely because marble was scarce in the area—had what there was gone into the palace?—and water connections to Oviedo are poor. But this still leaves us with artists, commissioners and cognoscenti who must have seen elsewhere such walls rich in actual marble. Indeed, that the palace-churches complex was close by a city where there was probably no marble to be found suggests (we can go no further) that Alfonso imported his (sparse?) antiquities from afar. So did others. King Pere III il Gran of Catalonia (1276–85: of Aragón, & I of Sicily) was buried in Santes Creus in a porphyry sarcophagus said to come from the Roman villa at Centcelles.¹²⁸ The vessel has naturally been linked by Raventós with the Norman tombs in Palermo, via the Mausoleum of Theoderic in Ravenna—and in fact it was probably imported direct from Sicily by Pere’s son, Jaume II.¹²⁹ In this context the marble lid of the sarcophagus of Alfonso Ansures (d.1093), from the Monastery of S. Benito de Sahagún, is surely prestigious, as it is supposedly the oldest sculpted funerary monument in the peninsula—and presumably cut from an old slab.¹³⁰

¹²⁵ <http://www.mieres.uniovi.es/veranes/>.

¹²⁶ Manzanares Rodríguez, Joaquín, *Arte prerománico asturiano: síntesis de su arquitectura*, (rev. ed., Oviedo 1964), 13.

¹²⁷ Orselli, Alba Maria, “Simboli della città cristiana fra Tardoantico e medioevo,” in Franco Cardini, ed., *La città e il sacro*, (Milan 1994), 421–50, good overview, with ample bibliography; cf. fig. 204, in “Il tema del prospetto palaziale”.

¹²⁸ Collins, Roger, *Spain: an Oxford archaeological guide*, (Oxford 1998), 112.

¹²⁹ Raventós, Xavier Dupré, “Il mausoleo di Centcelles e l’alveus in porfido nel Monasterio di Santes Creus,” in Arce, Javier, ed., *Centcelles: el monumento tardorromano, iconografía y arquitectura*, (Rome 2002), 83–96.

¹³⁰ *Moralejo, Serafín, et al., eds., *Santiago, camino de Europa: culto y cultura en la peregrinación a Compostela*, (Santiago 1993), cat. 87.

Santiago de Compostela

An index of marble scarcity in Christian Spain (and echoed in the same period in Muslim Spain) is provided by the various incarnations of the great pilgrimage church at Santiago.¹³¹ This is a large and mighty monument, and its wheeler-dealing Archbishop, Diego Gelmírez, deliberately “positioned himself to rival Rome”¹³²—as was only natural with the end-point of a competing pilgrimage route.¹³³ But here as in churches along the way, marble was scarce, and reserved for points of special importance, because communications by water were poor. These include the lower altar for the saint, faced with marble transennae of opposed peacocks which are surely Byzantine imports. The saint is given a splendid gilded shrine, but no marble sarcophagus—the explanation becoming clear when a visit is made to the Capilla de Reliquias, which is filled with splendid sarcophagi with figured lids, all in granite. In the narthex, the Portico de la Gloria is all (once painted) limestone—except for the central marble column. Outside, the Puerta de las Platerías was given marble and granite spiral columns in reference both to S. Peter’s in Rome, and to Solomon,¹³⁴ the connection made yet more explicit in the fragments with vintaging putti,¹³⁵ and the marbling noted.¹³⁶ The marble columns certainly gleam against the granite of the rest of the doorway. We may surmise that the tall willowy marble figures were indeed cut from columns—perhaps a common practice.¹³⁷ Even with

¹³¹ *Menestò, Enrico, “Relazioni di viaggi e di ambasciatori,” in Cavallo, Guglielmo, et al., eds., *Lo spazio letterario nel medioevo: Il medioevo latino, I, La produzione del testo*, II, (Rome 1993), 535–600; see 557–61 for Santiago.

¹³² Abou-El-Haj, Barbara, “Santiago de Compostela in the time of Diego Gelmírez,” *Gesta* 36.2 1997, 165–79; see 165. Castiñeiras González, Manuel Antonio, “Roma e il programma riformatore di Gelmírez nella Cattedrale di Santiago di Compostella,” in Quintavalle, Arturo C. ed., *Medioevo: immagini e ideologie*, (Milan 2005), 211–26.

¹³³ PL CLXX, col. 879ff, e.g. chap XVIII on the restoration of the altar.

¹³⁴ Hearn, *Romanesque sculpture*, 151 fig. 110–111: marble relief of S. James, Puerta de las Platerías, Santiago, c.1111. Tuzi, Stefania. *Le Colonne e il Tempio di Salomone: la storia, la leggenda, la fortuna*, (Rome 2002).

¹³⁵ *Moralejo, *Santiago, camino de Europa*, cat. 90. Castiñeiras González, “Roma e il programma riformatore di Gelmírez,” for discussion of marble links with Rome.

¹³⁶ Mortet, *Recueil*, 403 Codex of Santiago de Compostella: “Undecim vero columnae in eodem portallo habentus . . . quae scilicet columnae, aliae marmoreae, aliae lapideae, mirabiliter imaginibus, floribus, hominibus, avibus, animalibusque sculpuntur; hae vero columnae albi marmoris sunt.” Ibid. 405 “De turribus basilicae: Est etiam tota ex fortissimis lapidibus vivis, brunis scilicet et durissimis, ut marmor facta, et deintus diversis speciebus depicta, et deforis teolis [tegolis] et plumbo optime cooperta.”

¹³⁷ Fossier, *La France au temps des premiers capétiens*, cat. 67 for the relief of an angel as

such sparing use, the church itself exuded luxury: "The columns, magnified, multiplied and projected onto the portals, framed the whole of James's church, configuring it as a giant shrine, a lavish church of the sort that Bernard of Clairvaux attacked in scathing rhetoric in 1125."¹³⁸ Elsewhere in Santiago, marble is used sparingly for precious objects, such as the altar table from the Monastery of S. Paio de Antealtares, from a reversed Roman relief, and with a marble support (inscription of c.1150) which might have been another Roman stele. Three of four figured marble altar supports also survive from the same monastery, of similar date.¹³⁹

Gelmírez had visited Cluny in 1104, and surely seen the marble columns with carved capitals in the apse,¹⁴⁰ so perhaps felt he needed something on the same scale and richness. But there is another connection, in that the building program at Cluny was in part financed by Spanish gold, much of it taken from the Muslims.¹⁴¹ Hence it becomes possible to see Cluny as well as Santiago (captured by Al-Mansur in 997) as triumphalist in their scale—responses, as it were, to the triumphalism of the Mezquita itself, itself supposedly built large with spoils (including marble columns) taken from Christians. Gelmírez' columns must have been antique, so where did they come from? They could have come in by sea. And although there is an outside chance that the Roman road from Mérida via Salamanca and Astorga to Lugo was actually in use,¹⁴² transport down the Guadiara from Mérida would have been far easier.

the symbol of S Mark, beginning of the 12thC, in Besançon and from its cathedral: cipollino, 113 × 50cm, reused from a column stump. This might have been the source of the four figures flanking the entrance to the Duomo at Cremona. The figures on the façade of the 13th-century Duomo at Zadar might also have been cut from columns: the city had a substantial collection, such as those in the arcade of S. Crisogono, or the rotunda of S. Donato.

¹³⁸ Abou-El-Haj, *Santiago de Compostela*, 169–70.

¹³⁹ Moralejo, *Santiago, camino de Europa*, cats 5–6, 98–100.

¹⁴⁰ Conant, Kenneth J., "Mediaeval Academy excavations at Cluny," *Speculum* 29.1 Jan 1954, 1–43; see 11. As for the pointed arches: Abbot Hugh had visited Montecassino in 1083, where we know there were pointed arches reported in 1071. Horseshoe cusping on the triforium arches is another Islamic feature.

¹⁴¹ Bishko, Charles Julian, "Fernando I and the Origins of the Leonese-Castilian Alliance with Cluny," *Cuadernos de Historia de España* 47 1968, 31–135 and 48 1969, 30–116, republished online at <http://libro.uca.edu/frontier/spanfrontier.htm>.

¹⁴² Fletcher, R.A., *Saint James's catapult: the life and times of Diego Gelmírez of Santiago de Compostela*, (Oxford 1984), 62: there is notice of travellers using it in the first half of 8thC "if we are prepared to trust some notoriously controversial evidence."

Building with antiquities in Roman France

This chapter now studies how antiquities from public monuments and frequently from late-antique city walls¹⁴³ were incorporated into mediaeval buildings. The title of this book states one of its themes as monumental building, and the use of antiquities in doing so. As we have seen, marble was frequently scarce, especially in Spain if less so in France. But antiquities were plentiful, generally in local stones, usually limestone. The following sections therefore concentrate on cities in Roman France where documentation survives which can illuminate the processes and sometimes the rationale for such re-use. Arles and particularly Narbonne are studied, with minor treatments of Saintes, Poitiers and Périgueux. The transition from semi-deserted antique ruinfield to prosperous mediaeval city with churches and civic buildings (and perhaps accompanying civic pride) is the general leitmotif for many studies of re-use. But this is difficult to chronicle in many locations (Pisa, Benevento, Genoa, Langres, Milan, Paris, Dijon, Padua, etc.) because of a dearth of documentary accounts, and unsatisfactory for others (Rome, Pavia, Modena) because, although some accounts do exist, they are obscure or lacking in sufficient detail. Arles and Narbonne are excellent objects for study not only because of their abundance of antiquities, but also because they stagnated from about 1300 as the French powerhouse moved to the north of the hexagon. In what were now relative backwaters the evidence of the antique and Christian past survived, and was tracked and described in antiquarian accounts and sometimes in town-council minutes, longer than in those cities where the expansion into larger communities obliterated the past.

The position of Provence as a “front-line” buffer between the Franks and their successors to the North, and the Visigoths and Arabs to the South, was instrumental in regulating the fate of many of her antiquities. In broad terms, monuments (including sculpture) survived where they were of immediate and continuing use, and the rest suffered in the various waves of sieges, sackings and burnings. One of the most terrible of these was neither Visigothic nor Saracen, but Christian, namely the devastation caused by Charles Martel in 737. Then, for example,

¹⁴³ Hiernard, Jean, “Des remplois singuliers: les spolia inclus dans les enceintes tardives des trois Gaules,” in Ballet, Pascale, et al., eds., *La ville et ses déchets dans le monde romain: rebuts et recyclages*, (Montagnac 2003), 259–270 for a recent survey.

the thriving (but tiny) city of Maguelonne was ruined because it was a nest of the “Saracens,” to be rebuilt (and then only partially) in the eleventh century by Arnaud, her Bishop.¹⁴⁴ Much was lost because of easy access to the cities by water. Arles was to be despoiled in favour of Paris and, much earlier, Narbonne supposedly supplied marble for the Mezquita at Córdoba. Just how many re-usable antiquities Paris accumulated is unknown, but a splendid marble capital survives from the Saints-Apôtres, later S. Geneviève, demolished in 1807.¹⁴⁵

Unfortunately, building with antiquities did not end with the Middle Ages, with spoliation ending only as historico/archaeological appreciation developed. As late as 1821 the Commission for the Département du Gard had to fight casual damage done to the monuments, including the carting away of their stones. On 19 June 1821, for example, a decree was published protecting the monuments, stating that “their conservation should become the object of a particular and assiduous surveillance.”¹⁴⁶ Hence “the Maison Carrée and all the materials destined for the restoration of this precious monument are placed under the safeguard and surveillance of the municipal authorities.” It was forbidden to mutilate this or any of the monuments of the Gard, and the Decree was to be posted on the outside and inside of all monuments, as well as in the villages and post-relays of the Pont du Gard. Indeed, it may be that the Pont du Gard had suffered particularly badly; in the Middle Ages it had, according to Mazauric¹⁴⁷ furnished materials for the churches at Bezonce, Saint-Gervasy and Saint-Hilaire, as well as coffin-lids for sarcophagi at the necropolis of Saint-Baudile-hors-les-Murs at Nîmes.¹⁴⁸ Later constructions in the surrounding countryside are also partly built from its remains.

Arles

Arles, on the Rhône, was in a dangerous and accessible position for plundering, such as by the Saracens (734, 842, 850 and 883) and the Normans (859). For before the area slipped into malarial marshes in the

¹⁴⁴ Lenthéric, C., *Les villes mortes du Golfe de Lyon*, (2nd ed., Paris 1876), 333ff.

¹⁴⁵ Fossier, *La France au temps des premiers capétiens*, cat. 277.

¹⁴⁶ ADG 8 T 250, sect. “Monuments Antiques.”

¹⁴⁷ Mazauric, F., *Histoire du Château des Arènes de Nîmes*, (Nîmes 1934), 4.

¹⁴⁸ Goiffon, l'Abbé, *Dictionnaire topographique statistique et historique du Diocèse de Nîmes*, (Nîmes 1881), 52, 288f., 257.

later Middle Ages, the river and its ponds came right up to the walls.¹⁴⁹ Given that Saracen interest in Narbonne was in part that city's marble columns, perhaps they also shipped out material from Arles, down the Rhône, as French monarchs would do up-river centuries later. Arles had been an important city in ancient times, and was, according to Theodulf of Orleans, still important in the Carolingian period ("Urbs Arelas, aliis quae pluribus extat / Prima..."). In spite of the plundering related below she has retained a higher proportion of her monuments than Nîmes¹⁵⁰ or Narbonne. This is because her precocious prosperity and prominence did not last, and she knew her mediaeval apogee between the years 1200 and 1340.¹⁵¹ Monumentally, the result was beneficial: for whereas Avignon, which was of importance in Antiquity, lost all her remains with her new-found prosperity and the building work it entailed, Arles retains some of hers to this day, minus the exertions of the unfortunate fifth-century priest called Cyril, already cited.

In the Middle Ages, Arles was famous for her cemeteries, for three interconnected reasons. The first was that she housed famous relics. The second was her position, for she lay on the route from Italy towards Spain, namely the Via Tolosana, one of the great pilgrimage routes leading in stages and via great churches and relic-collections to Santiago de Compostela. The third was the complex of epics in which her monuments, and particularly her cemeteries, appear. Different versions of the "Chanson de Roland" have the dead knights, including Roland and Oliver, buried on the way from Blaye to Roncevaux, while others on the road from Roncevaux to Saint-Gilles (another important étape on the pilgrimage route) and Arles. Antiquities in the surrounding countryside were also used as property markers,¹⁵² and many were re-used, not least in the city walls.¹⁵³

¹⁴⁹ Lenthéric, Charles, *La Grèce et l'Orient en Provence: Arles, le Bas Rhône, Marseille*, (Paris 1910), 126, 138.

¹⁵⁰ dvd_narbonne_nîmes.doc.

¹⁵¹ Stouff, *La Ville d'Arles à la fin du Moyen Age*, Doctorat, (Aix-en-Provence 1979), 2 vols, 71ff.

¹⁵² Inquest dated 1268: "peironeum qui jacebat et nuper elevatus est, in quo sunt litterae sculptae, ut dicebant quidam qui ea legebant, et a dicto peirone usque ad alium peironum ubi sunt similiter litterae, et a dicto peirone usque ad tertium peironum, quod est supra caminum de Sallone" (AM Arles Ff 156); description of the bounds of the Crau d'Arles in January 1430, mentioning the same markers: "trium peyronorum in quo sunt littere sculpte juxta quod legitur" at the frontier between the territories of Arles and Aureille, and on an antique road "quandam viam antiquam apparatam;" cf. Stouff, *La Ville d'Arles*, 45, note 197.

¹⁵³ dvd_arles.doc.

The city walls

The *Gesta Comitum Barcinonensium* states that the Count of Provence destroyed the walls of Arles in 1161, and there is a general belief that a completely new enceinte was built in 1263. The lower courses presumably remained intact but, because of a lack of excavation, references to a “murum antiquum” in an act of 1152, as well as to three towers in the length of the rue de Méjan in 1293 and 1333 (AD BDR III G 16, fols. 17v–18r) cannot be linked to any surviving remains, which contain many antique elements.¹⁵⁴ Their first mention is in a letter of Theoderic in the winter of 508/9, referring to their restoration (*Variae* 3.44) The same letter also says that “ad cultum reducere antiqua moenia festinemus,” which suggests a deliberate policy of using suitable monuments as churches. Texts of the ninth and tenth century refer to the wall and its gates: the Porta Lutosa is still there to the north, and the walls follow the rocky ledge to the east; but from the Tour de Morgues, the circuit has apparently shrunk slightly in size since Antiquity, for it now passes close to the theatre. Stouff believes¹⁵⁵ this change may date from the ninth century, when Archbishop Rolland built the eponymous tower above the Porte de l’Aura. He notes that the hinge of the problem (which is insoluble) is whether the tomb of Saint Caesarius was inside the city walls, and therefore whether it was these or some other walls which held out the Saracens, who sacked the Tomb of S. Césaire c.883.

Nor was the fortification of Arles restricted to these two structures, for by 1150 the Porta Lutosa of the city had become the castrum de Portaldosa, held by the de Baux family. This was demolished in the fourteenth or fifteenth century, leaving only its “spine,” the Roman triumphal arch known as the “arc admirable.” In other words, an arch had been used as the basis for a small fort—as happened at Orange, and so often at Rome. Furthermore the “capitole” (which was presumably the area around the Temple of Augustus) was also fortified.¹⁵⁶ Two of the columns of the Temple itself were still standing in 1336, when they were the subject of a dispute between two proprietors, solved by the urban magistrates who gave one column to each.¹⁵⁷ There were also

¹⁵⁴ Heijmans, Marc, et al., *Arles antique*, (Paris 2006), 52–3.

¹⁵⁵ Stouff, *La Ville d’Arles*, 60.

¹⁵⁶ *Ibid.*, 48.

¹⁵⁷ Fassin, E., “Curiosités des anciens notaires d’Arles,” *Le Musée*, 1878–80, 216.

old marble set in the city walls, and a 4-bust cippus has been found at Saint Honorat,¹⁵⁸ though whether the cippus was ever displayed à la Benevento is unknown.

The cemetery of the Alyscamps

The Alyscamps (that is, the Elysian Fields) were huge, perhaps as big as the city itself,¹⁵⁹ and it is not known how many sarcophagi they contained—although “dans toutes les fermes des environs, les auges des bestiaux sont des tombeaux de pierre ou de marbre, et l’on traverse les nombreux canaux qui divisent les propriétés, sur des couvercles de tombes qui servent de ponts.”¹⁶⁰ It has been suggested that there are so many sarcophagi here because they were dropped off by Roman ships.¹⁶¹ Indeed, there were other cemeteries, and not all the Arlesian sarcophagi we now know came from the Alyscamps.¹⁶² But as the *Guide du pèlerin* notes, “In no other cemetery elsewhere could one find so many tombs of marble, nor such large ones, aligned on the ground. They are worked in different ways (*d’un travail varié*), and carry ancient inscriptions sculpted in Latin letters; but in an unintelligible language. The further away one stands, the longer the files of sarcophagi appear to be.”¹⁶³ In spite of Renaissance deprivations, many more survived into the seventeenth century than are visible today.¹⁶⁴ The eventual decline in the funerary prestige of the Alyscamps probably aided the preservation of at least some of its tombs. Thus Stouff calculates a declining percentage in the wills of citizens requesting burial there: for the period 1376–1400: 56.9%; 1401–25: 40.7%; 1426–50: 34.6%; 1451–75: 22.9%.¹⁶⁵ Occasionally, the requests were specific, such as that of Johan Boye to be buried “in tumulo sive sepulcro antique.”¹⁶⁶ In spite of deprivations in earlier centuries, fine marble sarcophagi were still being taken from the cemetery in the sixteenth and nineteenth

¹⁵⁸ Espérandieu: *Recueil* I.123, I.193.

¹⁵⁹ Lenthéric, *La Grèce et l’Orient en Provence*, 278ff.

¹⁶⁰ Mérimée, Prosper, *Notes d’un voyage dans le Midi de la France*, (Paris 1835), 296–7.

¹⁶¹ Quintavalle, Arturo Carlo, “Quei campi dei miracoli,” *Rilavorazione*, 15–28.

¹⁶² Heijmans, *Arles antique*, 114ff.

¹⁶³ Vieillard, J., *Le Guide du pèlerin de Saint Jacques*, (4th edition, Macon 1969), 37.

¹⁶⁴ Séguin, I *Les Antiquitez d’Arles, traités en manière d’entretien, et d’itinéraire, ou sont décrites plusieurs nouvelles Découvertes qui n’ont pas encore veu le jour*, (Arles 1687), Part 2, 1ff.

¹⁶⁵ Stouff, *La Ville d’Arles*, 49.

¹⁶⁶ Archives Départementales des Bouches-du-Rhône, 404 E 97, for 15 June 1398.

centuries,¹⁶⁷ though they had to be dug out, whereas in the days of pilgrimage they were apparently all displayed at ground level.¹⁶⁸ One of the Charlemagne legends has him fighting the Saracens near Arles, upon which a multitude of tombs miraculously emerged from the earth to receive the dead from the battle. Another has Charlemagne and Turpin carrying their dead companions to the Alyscamps. A third has Charlemagne besiege the Saracens within the city, and defeat them by diverting a subterranean aqueduct which feeds the city—presumably an antique one, and perhaps even the one whose remains were still visible in the seventeenth century.

If the Alyscamps retained their popularity as a burial place into the fifteenth century (and their fame as a source of high-quality sarcophagi for at least two centuries thereafter), the cemetery across the river, in the suburb of Trinquetaille, was apparently already abandoned by the later Middle Ages. In Lantèlme's day, the area was almost deserted, but gems and coins were frequently found there.¹⁶⁹ When Séguin wrote in 1687, he noted that the walls and towers were still visible, and that blocks of stone, urns and mosaic floors were constantly being unearthed there.¹⁷⁰ Already in the thirteenth century, writing of the church of S. Geniès in Trinquetaille, *Le Guide du pèlerin de Saint Jacques* noted "a column of magnificent marble, and very tall, standing behind the church of this saint."¹⁷¹ The water level must have risen since ancient times for, when the Rhône fell periodically, there were uncovered the remains of a pagan necropolis, of house walls, docks and the bridge linking Arles with Nîmes across the Petit Rhône.¹⁷²

The "Palace of Constantine"

The Roman Baths were known throughout the Middle Ages and later as the Palace of Constantine. This misunderstanding stemmed partly

¹⁶⁷ Espérandieu: *Recueil* I.114, I.137; I.129 for a vessel from the Alyscamps placed in the crypt of Saint Honorat, and used as tomb of a bishop.

¹⁶⁸ Melczer, William, *The pilgrim's guide to Santiago de Compostela*, (New York 1993) (-viz. Codex Calixtinus. Liber 5), 97: the Alyscamps with "so many and so large marble tombs set upon the ground."

¹⁶⁹ de Romieu, L., *Histoire des Antiquitez d'Arles, avec plusieurs écrits et épitaphes antiques, trouvés la-mesmes, et en autres lieux*, MS 240 of the Bibliothèque Municipale, Arles, dated 1574 and in a transcription of 1776, fol 7v.

¹⁷⁰ Séguin., *Les Antiquitez d'Arles*, Part 2, 38ff.

¹⁷¹ Vieillard, J., *Le Guide du pèlerin*, 37.

¹⁷² Stouff, *La Ville d'Arles*, 45, 47.

from their splendour, partly from the desire to link the city's famous son with a surviving monument, but largely from its use as a palace by the counts. It is so listed in documents of the thirteenth and fourteenth centuries. Thus Charles of Anjou possessed "domum seu palatium que vocatur Trullia ubi sunt multe domus."¹⁷³ And by the fifteenth century, the palace might well have gone, as the Land Register (terrier) of 1437 declares that several people have houses, courtyards, stables and cellars there. Lantèlme de Romieu confirms that there were indeed houses there in his day, noting "an old building of brick, very large and thick, held up at the front by arches and columns, most of them now completely broken down, or cushioned by new private buildings; the which one presumes to have been once the palace of the Kings of Arles."¹⁷⁴ But they still perhaps formed a "prestige" site, for they belonged to Messieurs les Commandeurs de Sainte Luce. In Séguin's time, large columns of granite and white marble, together with pieces of cornice, were still to be found in nearby houses; and still visible (apparently also re-used in the same houses) were "stone slabs, of prodigious size and incredible polish, which would have been the pavement of the courtyard of this chateau" (*qui seroient au pavé de la basse cour de ce château*).¹⁷⁵ Clearly, Séguin thought the structure was a castle—in spite of mentioning the large quantities of lead pipes still to be found on the site.

Post-medieval degradations

Unfortunately, however, the very fame of Arles and her surviving antiquities worked against the interests of her citizens, for it led only to their further depletion. Clearly prestigious materials were still available: the church of ND La Major (begun 1152) had twelve porphyry columns decorating its apse, but eight of these were taken by Catherine de Médicis in 1569, and lamented by the local historian Lantèlme, who records that they were taken "to the great regret of the citizens."¹⁷⁶ But antiquity is not mocked, and they were lost in the Rhône, and never recovered. These would indeed have been a fine haul, for individual porphyry columns are rare in France—let alone a matched suite of eight

¹⁷³ Baratier, E. & Villard, M., *Archives Départementales des Bouches du Rhône. Répertoire de la série H 56 H*, (Marseille 1966), 402.

¹⁷⁴ de Romieu, *Histoire des Antiquitez d'Arles*, fol 6.

¹⁷⁵ Séguin, *Les Antiquitez d'Arles*, 49ff.

¹⁷⁶ de Romieu, *Histoire des Antiquitez d'Arles*, fol 4r, 6. The porphyry column in the 12thC west porch of Le-Puy-en-Velay was fortunately left, probably being too short for further re-use.

(if they were indeed matched). At the same time the Queen Mother took marble decorations from in front of the presbyterium of S. Honoré: these were two marble heads, each paired, so presumably representations of Janus. She also took "several fine antique monuments of marble, all sculpted" from the façade of the same church. Lantèlme contents himself that there are plenty left, and that the Queen Mother cannot get at the "notable antiquities sculpted in marble" which are built into the city walls! And in his discussion of antique statues in the town, he says that a statue of Hadrian was given by the Seigneur de Beyners to Francis of Lorraine, Grand Prieur de France, when he visited Arles; this was taken off to Marseilles.¹⁷⁷ Amongst many other examples was the sarcophagus which, in 1521, stood to the right of the entrance to Saint Honorat on the Alyscamps. This was also taken to Marseilles, this time on the orders of another Grand Prieur, Henri d'Angoulême.¹⁷⁸ On at least one more occasion, such robbery failed. For when Charles Emmanuel, Duke of Savoy, visited Arles in 1593, and wished to carry off a vessel from the same church, the cart could not get out of the cemetery (divine intervention?). Nevertheless the vessel was indeed taken but did not reach Marseille until 1803 (Espérandieu 1, no. 184). Brunet's lament printed in 1687¹⁷⁹ surveys the ruins, which have been resurrected only by Séguin the antiquary: "De cent Antiquitez les beautez effacées. / Arles n'avoit plus rien de sa grandeur première, / Ce n'étoit qu'un amas de funestes débris, / Sa gloire comme sa matière, / Confondue avec la poussière, / Se perdrait pour jamais, sans tes scavans écrits." Nor did this robbery cease in later centuries. Jean-Julien Estrangin, writing in 1837, complained that "There was a time when the Museum of Arles occupied the whole extent of the city, and was to be found everywhere—in the roads, squares, churches, houses and even in the fields; but what is the result? Between 1804 and 1808, rogues dealing in antiquities removed works in granite and marble from the sunlight of our roads and squares, and took them by the sea road to Marseilles, or by the Rhône to Lyon, in order to deal in them."¹⁸⁰ In other words, in spite of the depredations there was still marble left for the taking in later centuries. The museum is certainly rich in sarcophagi, but the churches of the city are surprisingly bare of antiquities.

¹⁷⁷ Ibid., fol 4v.

¹⁷⁸ Espérandieu 1, no. 167 for Arles.

¹⁷⁹ Séguin, *Les Antiquitez d'Arles*, preface.

¹⁸⁰ Cited in Espérandieu 1, 114.

*Narbonne*¹⁸¹

It seems likely that many of the large number of antiquities still to be seen in Narbonne today were encased in the Roman enceinte and its mediaeval rebuilds, and were tapped many times (as we shall see) for building materials. Hence, as Espérandieu remarks,¹⁸² the ramparts of the city constituted its true Lapidary Museum, and it is only with the various rescue digs of post-war times that the richness of that city is being revealed, with finds of fine mosaic floors, of frescoes and glass, and of the Paleochristian basilica at the Clos de la Lombarde. Only the finest (and not many in terms of quantity) were chosen for the François Ier enceinte. This went up very slowly; for although its beginnings are to be seen in the acquisition of the Viscounty of Narbonne by Louis XII in 1507, the work on this bastion for the protection of France's southern flank, including the Porte de Perpignan, was still building in 1604.

Narbonne, therefore, was to remain a fortress town through the later Middle Ages, and an important one not only for the Counts of Toulouse, but also subsequently for King François Ier, who had a new set of walls built, and displayed in it Roman antiquities from the civil and funerary monuments of the city and its surroundings. These antiquities have been catalogued and photographed by Espérandieu,¹⁸³ and were preserved in the city when these walls were dismantled after being declassified as a military installation in 1868. Photographs survive of just how the antiquities were re-used,¹⁸⁴ and a small stretch of wall has been left standing on the Blvd. Dr Lacroix, next to the Ecole Montmorency. This is nearly 5 metres high, with seven visible courses of large blocks, and a continuous frieze containing sculpted blocks and inscriptions; several of the lower blocks, which are of differing sizes, are also clearly in re-use. Three other locations were also prominent, and brief accounts of each follow.

The first is the Archbishop's Palace, but here we suffer from the difficulty that the whole area has been considerably tidied up, not only by Viollet-le-Duc when he produced the frontispiece for the Hôtel de Ville, but also at the turn of the 20th century. Multi-storey houses

¹⁸¹ See *dvd_narbonne_nimes.doc*.

¹⁸² Espérandieu, *Recueil*, I, 355.

¹⁸³ *Ibid.*, I, 355ff.

¹⁸⁴ *Ibid.*, I, 356–7 for the Portes de Béziers and de Perpignan.

covered, in the 19th century, much of the façade of the palace facing the modern rue de la République: these are clearly visible in drawings and paintings before Viollet-le-Duc's work,¹⁸⁵ and reached as high as the balustrade he placed on the east façade. The houses were taken down about 1909, and the curtain wall between the great square tower and the round tower to the west cleaned up. Carbonell-Lamothe's study of the south-facing façade shows that there may once have been arched openings, perhaps for the bays of a loggia, or even for the high arches which were on the eastern side even before Viollet-le-Duc's work.¹⁸⁶ If such work were datable, then we might be closer to suggesting a date for the display of antiquities in the same façade.

The second example is the Tour Mauresque, which formed part of the city's walls. When this was dismantled in 1633/9, inscriptions were found on the site. The stones were given by the King to the Carmelites for their new building work, and the worked ones appear to have been displayed in their walls: this was even the case with altars which were plainly pagan. One altar, for instance, was prominently displayed in the street-facing wall of this convent. Pech voices what may have been a prevailing opinion, namely that the tower had been built by the Goths, "who had thrown in its foundations several Roman monuments in order to efface their memory."¹⁸⁷

The third example is a conglomerate of inscriptions still to be found in the walls of the Palace facing onto the present Jardin de l'Archévêché, hence on two sides of a triangle the third of which is formed by the line of the Roman wall. This garden was used in the eighteenth century as a collection point for the display of antiquities, where they would be out of target, as one document has it, of little boys throwing stones. Pech mentions here an altar with the inscription PACI: AUG being let into the "wall of the Archbishopric courtyard" in 1707.¹⁸⁸ Even today there are two inscriptions let into the wall of the Palace looking onto the garden. Many of the lower courses composing the wall could well be Gallo-Roman; and it is likely that more are concealed underneath

¹⁸⁵ Pradalier, H., "L'Hôtel de Ville de Narbonne par Viollet-le-Duc," *Bulletin de la Commission Archéologique de Narbonne* 39 1977, 63–107, pl. 3 & 4.

¹⁸⁶ Carbonell-Lamothe, Yvette, "Recherches sur la construction du Palais neuf des Archevêques de Narbonne", in *Narbonne. Archéologie et Histoire, II. Narbonne au Moyen Age*, (Montpellier, 1973), 217–236; see 229, figs 9 & 7.

¹⁸⁷ E.g. Pech, Canon, *Inscriptions et bas-reliefs qui sont à Narbonne*, of 1713. BM Narbonne MS 27, fols 7, 9, 26–31.

¹⁸⁸ Pech, *Inscriptions*, fols 7, 26, 30.

the two-metre-high plaster between the two round towers. As Cairou writes, the wall is Gallo-Roman up to about three metres, with “matériau de seconde main empruntés aux monuments romains détruits dont on distingue les trous de louve et les traces des crampons de scellement.”¹⁸⁹ These features suggest that the new work on the Palace (done sometime in the later thirteenth century) used antiquities; and since we have documentary evidence of the Consuls ordering the Archbishop to keep his hands off the enceinte, and to repair any damage caused, it is reasonable to believe that at least some of the new Palace was built at the expense of that enceinte. The documents exist, of course, because the palace was the property of the Archbishop, but the walls belonged to the municipality. Narbonne is one of several municipalities of the later Middle Ages constantly striving to keep protective walls intact in the face of the encroachments and dismantling by householders, the more so because in so many cases houses had been built against the walls, or even within them.

At least some of the material on the Donjon came from the same monuments now stored in the Lapidary Museum, but when were they erected for display in the Donjon Gilles Aycelin? The large blocks of the Donjon have been recut in order to accommodate them (this contrasts with, for example, the surviving stretch of the François Ier enceinte, where the antiquities form a continuous frieze). Perhaps the blocks came from the Roman enceinte, plundered at the time the Donjon was built or perhaps refaced; or Roman monuments were still standing into the later Middle Ages, and it was these which were used for both the Donjon, and some of them also for the François Ier enceinte. Certainly, it seems likely that plenty of antiquities were indeed available at the supposed build date of 1290 for the Donjon's superstructure, for we have already seen that Pierre de Montbrun was probably in search of building material at the Capitol in 1277. And since the city wall passes very near the Capitol, any antiquities displayed in the Donjon could just as easily have come from this northern location as from the wall adjacent to the new Palace.

¹⁸⁹ Cairou, R., *Narbonne: vingt siècles de fortifications*, (Narbonne 1979) 26.

Conclusion

In France, large quantities of antiquities were available for re-use. The majority are of local limestone, not marble, and these blocks were incorporated into late antique and then various mediaeval walls, with pieces sometimes displayed as trophies, as at Narbonne and Arles. In comparison with Italy, marble was in short supply, and usually in the wrong place, since most population expansion was further north, so the antiquities were moved, up the Rhône where possible. For this reason whatever marble columns and veneer that once existed in Provence have largely disappeared. Hence the once-splendid antique theatres (Arles, Orange) now display few monolithic columns, just as later they were to lose their 3D sculpture to collections and museums further north. But even in the south where, as elsewhere, there is certainly an increase of church-building after the Millennium, this is mostly small-scale. Sometimes column-shafts are re-used, but there was no rush-to-marble as there was in Pisa, Genoa or Venice, surely because of the lack of important international trading connections. In consequence, even monuments of the highest quality (Moissac, Toulouse, Arles) display marble only in moderation.

In Spain, a large and mountainous country, marble use is even patchier than in France, and shifting marble around required significant resources. So that, although large quantities of Roman marble were vacuumed up by the Moslems, it was disposition rather than availability which restricted even the adventurous structures of Oviedo. All Visigothic churches were small, and used marble in modest quantities. But this was also the case with the huge basilica at Santiago, the pilgrimage rival to Rome. This has splendid decoration and sculpture, but little marble and little interest in displaying antiquities. Given the will, Santiago, not far from the sea, could have imported antiquities with relative ease, but evidently chose not to do so.

Indeed, so restricted were marble supplies that imposing churches on both the French and Spanish pilgrimage routes to Santiago made little play of marble, except for precious items such as columns, shrines and the odd bas-relief. For most purposes, the local limestones were perfectly sufficient, even for fine-detail sculptured tympana or cloister capitals. As in Italy, it seems likely that plenty of limestone quarries were working around the Millennium. Generally, marble was not even on the horizon for most pilgrimage-church builders. These, by definition, were alert,

internationally-aware entrepreneurs, who happily imported craftsmen and espoused foreign decorative motifs (many of them Islamic)—but not marble.

The reason probably lies in the nature of the building materials the Romans left behind in both countries. Limestone was the usual material, plus marble from the Pyrenees or Spanish quarries, and luxury marble imported as needed. But the imports were in small quantities, and had apparently disappeared by the time of the supposed “Glaber church-building” after the Millennium. What were left were the large quantities of limestone and sandstone antiquities, many of which were re-used and probably recut as we saw in the town biographies in the second half of this chapter.

CONCLUSION & BIBLIOGRAPHY

CONCLUSION

The Middle Ages and the ancient landscape

This book has taken a broad overview of a phenomenon important for the complexion and development of architecture and decoration all over the Mediterranean. The theme running through it has been the variety of new responses in the construction of monumentality via a noble material. It has not identified any consistent attitude to the glories of Rome, or any desire to resurrect or imitate them by exact architectural reproduction, although it seems likely that mediaeval people could certainly have connected marble generically with empire. Desiderius is as distant from Augustus as we are from him. Today we know Rome, and also North Africa and Syria, about which presumably he had only verbal reports. But we are not linked to the architecture of Rome except very generally, and then by form and by different materials. Mies van der Rohe, Louis Kahn and Aldo Rossi use concrete, steel and glass, rather than marble, mosaic and stucco. Desiderius' Montecassino was in part inspired by Early Christian architecture, as was Charlemagne's Palatine Chapel by Byzantium. Ever since the partly innovative Early Christian basilicas, people no longer built like the Imperial Romans, but often used such Christian structures as models to follow or vary, employing old marble whenever possible. Islam (a term used as shorthand for the diversities of a series of disparate dynasties and traditions) offered examples of how to deal with domes and mosaic, but also how to exploit the syntax of base-column-capital to achieve distinctly innovative structures. The reach of mediaeval Moslems was such that in a sense they tied the Mediterranean together, by quoting structures and decorations at one end of the Mediterranean which echoed structures seen at the other. This made as great an impact as either Syrian or Byzantine influence on Early Christian and later architecture in the West.

What such re-use might mean is vexatious, and of course this is the key to our interest in them. In some Christian architecture, there are occasionally mediaeval hints (even a few explicit inscriptions) which suggest that the practice carried some meaning, even if we can rarely be clear about the details. But generally we must construct some plausible rationale, even for the Renaissance. Indeed, the example of Islam

demonstrates how careful we should be about treating re-used marble and Roman civilization as some kind of inevitable package, because the Moslems used Roman marble for the beauty and solidity of the materials. While hints of the Roman past are evident in many Islamic buildings (unsurprisingly, given column-capital-base sets), nowhere in the Islamic world do any mediaeval buildings look more than superficially Roman. Some of their materials came from ancient monuments and churches already built from them, and some marble was certainly taken as loot. Although Islam, like Christianity, is indeed a triumphalist religion, in the absence of documentary evidence we should be careful about overusing terms such as “triumph,” let alone “imitation.”¹ The difficulty is the lack of evidence explicitly associating architecture with ideology, or the widespread use of antiquities with any specifically triumphalist stance. In general terms, of course, any building is a triumph over logistics and construction. Old St Peter’s exemplifies the triumph of Christianity over paganism, but is this really why it was built from old marble? Like the Dome of the Rock’s very location, the words of the inscription inside it (“...Jesus son of Mary, was only God’s messenger...”) proclaim Islam over Christianity; but no explicit link is made between ideology and the building’s display of superb antiquities. Similarly, the use of Pharaonic columns and capitals in several of the mosques of Cairo can surely be seen as the enthusiastic use of the most beautiful materials available, and as a demonstration of transport and engineering skills, rather than as some kind of triumphalist programme.

It bears repeating that although today we certainly know more about classical architecture around the Mediterranean, the Middle Ages saw much more of it, and often helped to dismantle what they found (so much for the classical tradition and *romanitas*). Indeed, given trade and the Crusades, mediaeval people were probably more conversant with architecture around the Mediterranean than was to be the case until the 17th century. But even then it was only a handful of travellers who described for their readers the glories to be seen outside their home countries. It is ironic that, as people were becoming more alert to antiquities abroad, they were being lost at home in even greater numbers. Thus with the expansion of population in Western Europe, many more monuments have been lost in the past two hundred years than in the

¹ dvd_spolia_a_definition_in_ruins.doc.

previous two thousand, and we must visit North Africa or Syria to be able to picture just how intact the ancient landscape (minus most of its marble monoliths and veneers) must have appeared to mediaeval eyes. It follows that the Middle Ages actually had more choice than we do today in the selection of splendid building materials. Consequently, a sufficient range of comparanda does not survive for us to be able to assess the aesthetic impact intended by such strange buildings as the Campanile at Pisa, or the façade of S. Marco, Venice.

In the construction of monumentality, the great churches of Christian Rome, and then of Constantinople and Ravenna, demonstrate how to use antiquities elegantly to make (largely) new forms. Islam, certainly impressed by such structures, but with different and diverse cultural influences, produces an equally appetising but completely different menu from much the same ingredients. Some structures will outrank new European building until after 1000 AD, and which arguably helped in provoking the strong and ambitious revival of European architecture after the Millennium. Were we able to document the process of building, we would better understand the equivocal relationship between the Roman past, with its surviving monuments, and the competing claims of territorial expansion, commerce, and military and naval technology which were all, at one time or another, motors of ambitious architectural construction.

Re-used marble and new monuments

In this book we have seen the re-use of antiquities as (1) trophies or statements, intended to convey messages; (2) ready-made or easily convertible architectural elements intended to enhance new or refurbished buildings; and (3) convenient building materials with no aesthetic or symbolic value. Indeed, the glorious past is a suit of clothes that can be made to fit anyone: no genetic affinity, common bloodline, language, race or religion is necessary between the spoliator and the sources used, although conquest (even over transport difficulties) is a frequent link. Hence it was applied by a variety of peoples of various religions all over the Mediterranean and further afield, for a variety of reasons. Marc Fumaroli's acidic assessment of contemporary French culture notes that it was "invented by an oligarchy infected with a complex in which there is some mythomania, a lot of megalomania, yet more paranoia and very little true culture"—so that "Beneath such imposing

appearances, it is difficult to imagine any more meticulous a crippling (*jivarisation*) of a Caput Mundi.”² Such strictures could fit several of the reasons for re-use, especially the potent mix of mythomania and megalomania, laced with arrogance—an artificial and lightweight imposition which stifles intellectual culture. What we are missing, indeed, are the various rationales for the use of ancient marble, which would allow us to understand specific aims in mediaeval architectural programs, and assure ourselves that Fumaroli’s strictures do not apply to our period.

The early Christians have a complicated but fruitful relationship with Roman (and some Greek and Hellenistic) art and architecture, the Moslems likewise. Glory gets effortlessly nationalised today: the Egyptians have plans to rename “The Islamic Museum” to “The Egyptian Museum” when a decision has been made on what to call the museum with the Pharaonic antiquities in it; and on their banknotes they generally have an Islamic monument on the recto, and a Pharaonic one on the verso.³ Turkey’s banknotes often show an Islamic or a classical monument, and appropriately so, since some of their great Imperial mosques consumed large quantities of Roman marble, in forms inspired by Byzantine example. Further West, Charlemagne, with his imperial ambitions, and his Palatine Chapel (with its ancient elements), might well be called “the Father of Europe” by some, but these elements were neatly sidestepped by the EU, which deliberately uses no such national symbols on the interchangeable Euro banknotes. In Apulia, a classical revival was promoted by (originally) French-speaking Normans, while Sicily’s great civilization rises to prominence at the hands of Greek- and Arabic-speaking Normans and Germans. Marble, with its beauties and (for some) antiquarian prestige, is a material linking mythomania and megalomania in today’s museums and politics, if not as strongly as it did in the mosques and churches of the Middle Ages.

Food for thought

Puzzling questions surrounding building with antiquities necessarily remain unanswered in this book because so many marble-rich mediaeval buildings have subsequently disappeared. Given a continuing

² Fumaroli, Marc, *L'état culturel: une religion moderne*, (Paris 1991), 292, 299.

³ Reid, Donald M., “Cultural imperialism and nationalism: the struggle to define and control the heritage of Arab art in Egypt,” *Int. Jnl. of Middle Eastern Studies* 24.1 1992, 57–76.

consciousness via the literature of antique traditions, it is difficult to judge the balance of importance for new architecture between physical survival and deliberate revival. For example, is it really the case that the stunning illuminations in Carolingian and Ottonian (and earlier) MSS showing marbled canopies, thrones, and whole buildings, were visionary? Is this how contemporary altars/ciboria actually looked? Are reliquaries in fact surviving echoes of full-size buildings?⁴ Were greater quantities of marble re-used much earlier than survivals suggest? And with such revivalism and so many models, why is the re-introduction of both portrait sculpture and 3D sculpture so very late, with the exception of the frequent use of Roman and then Romanesque apotropaic lions prominently displayed? A parallel question is, if the “classical tradition” is such an important notion in the art and architectural history of the West, why were so few Roman buildings (the *Maison Carrée* at Nîmes is a conspicuous exception) tolerated, if later pampered and preserved? The same question might be posed for the Renaissance in Rome, which saw enormous destruction, especially for the New St Peter’s, wherein few old columns or capitals were displayed as such—and when the marble quarries were certainly in operation. It was always cheaper to spoliare than to quarry, so we might reasonably expect more revelations on mediaeval quarrying, and to find even a few mediaeval ships carrying marble. Why is it that mediaeval megalomania stretches to quantity but not often to extreme size?—and this in cultures which can hoist multi-ton bells into belltowers, and operate house-sized counterweight trebuchets and siege-towers. There are few columns much taller than three metres in re-use, perhaps because of transport difficulties—no forty- or sixty-footers. Pisa probably gets the palm for large-column transport for the Baptistery and Duomo, even if the shafts come only from Elba and Sardinia. Neither Cairo nor Constantinople come close. Ottoman Istanbul, with the granite monsters inside the Suleymaniye, can be compared only with the Byzantine (and Western Roman?) structures she sought to emulate.

As for documented marble ownership, the Cairo Geniza documents feature marble as something to be inherited, not least because veneer is movable. But there seems little beyond hints in Western documents (for example, in Genoese thirteenth-century wills), which tend to conventional

⁴ And by extension, what is the relationship between bronze or ivory etc. figurines to be found in church treasuries (many on reliquaries) and Roman statuettes, thousands of which have survived? Or, indeed, with full-size antique marble or bronze sculptures?

formulae rather than specific details. Will documents ever surface which might confirm that, for example, the use of drill-work (as at Trani) was a deliberate imitation of the antique, or that imitated Byzantine capitals (Trani again) were code for accepted overtones of empire? That the design of the rose-window at Troia was indeed inspired by Islamic patterns? Or will documents ever confirm contracts for the translation of marble floors or wall veneers to new locations?

The significance of marble use in the Middle Ages

This book has placed the use of marble in the very broad context of the whole of the Mediterranean, arguing that to confine any examination of the use of such a prestigious and widespread resource to one city or region or religion would be to disregard the healthy spirit of competition blowing alongside the winds which encouraged international trade, raiding and war. Competition was an important trigger not just across the far-flung lands of Islam, but probably (it is impossible to prove) as a spur to developments in Europe as well. Although it is common to view Byzantium as an inspiration for Western architecture, it is rather the sometimes megalomaniac builders of Islam who make the running in vigorous palace and mosque construction, happily recycling the building-blocks of the Roman (and sometimes Pharaonic) past into new and inventive combinations—developments in size and materials which the West can match only in the 11th century.

To make new from old is not to reject the past, but the fact that the West never made any thoroughgoing effort to resurrect Romanitas except in a few details (and never in whole buildings) should help temper the more romantic explanations of some scholars for re-use. We can all agree (and the Middle Ages certainly understood) that a beautiful and luxurious material quarried and transported with great effort continues to exude power and prestige, and to be an essential material for the higher-quality churches tombs, mosques and palaces. But to go further than this on the available evidence is to start from theory and then to make it fit the evidence, whereas to operate *vice versa* is much more secure if generally less satisfying. Hence the stance of this book: contemporary ideas have been explored where they have been found, but it is the material cut into its manifold shining forms which is the true gift of the ancient world—marble, in all its variety and beauty.

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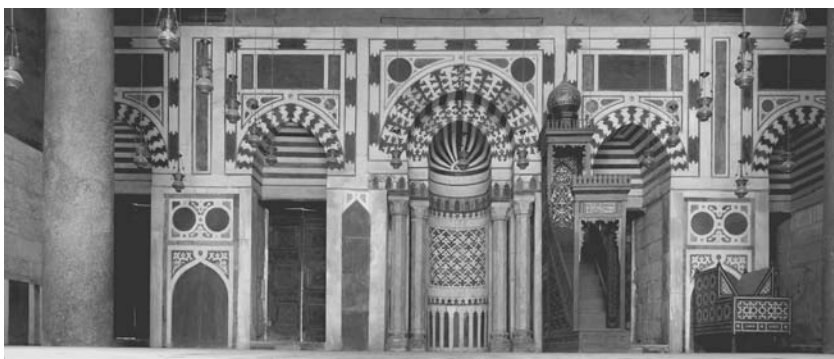
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stone & stonework, travertine

ILLUSTRATIONS



Clockwise from top left: Al-Aqmar prayerhall, Cairo, 1125; Lateran Baptistery, Rome, 440ff. S. Zeno Chapel, S. Prassede, Rome, 817–24; S. Pierre, Narbonne. The mosque re-uses capitals & shafts, the Roman churches entablature blocks, slightly reworked in S. Prassede. S. Pierre uses a ?6thC sarcophagus (from the crypt?) as a lintel in the ?12th-century church.



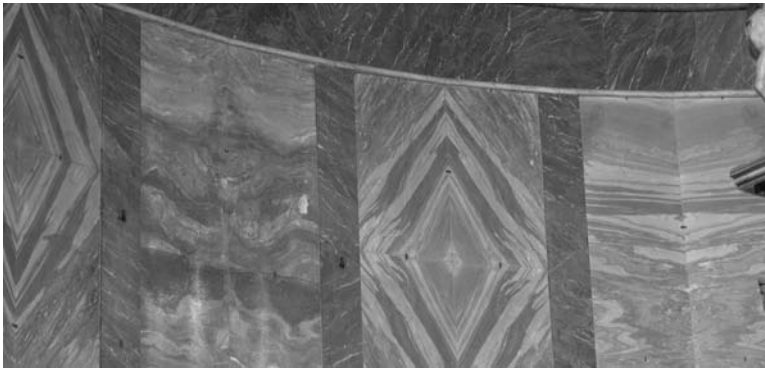
Top to bottom: Prayerhall of Barquq Complex, Cairo, 1384–6; Aisle of Mosque of Al-Nasir Muhammad, Cairo, 1335; Interior of S. Zeno Chapel, S. Prassede, Rome, 817–24. Barquq's prayerhall, supported on 5m granite columns, survived the Ottomans, who ripped the veneers from Al-Nasir's mosque. The S. Zeno Chapel displays, in tiny quantities, re-used antiquities of the highest quality.



Clockwise: New St Peter's, Rome; Caliphal base, Madinat al-Zahra, 10thC; Fountain Room, La Zisa, Palermo, later 12thC; Prayerhall, Mezquita, Córdoba, 785ff. St Peter's displays shafts from the Constantinian basilica throughout the new church. In Palermo, la Zisa re-uses columns and veneer, and so does the Mezquita at Córdoba—but nearby, 10thC Madinat, a large project, also quarries fresh marble.



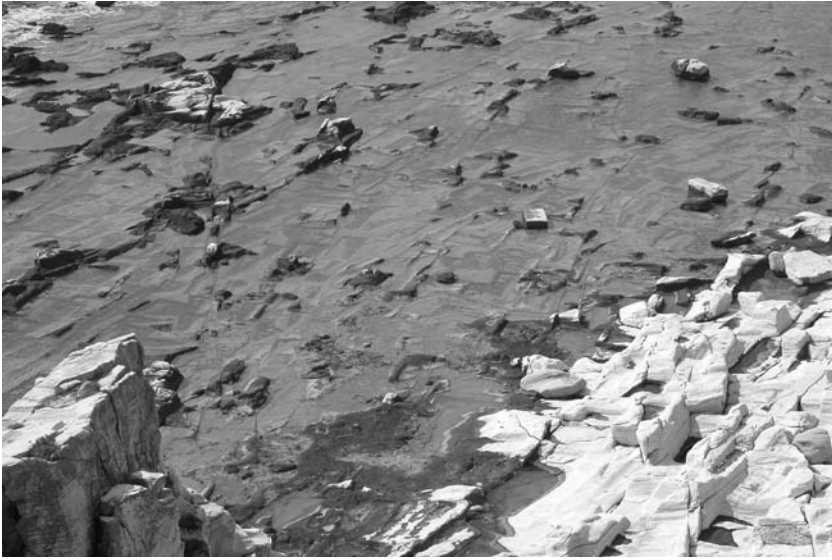
Top: Marble veneer walls in Agios Demetrios, Thessaloniki, mid-5thC; *Left:* the Dome of the Rock, 687–91; and *Right:* part of the floor, with porphyry roundel, in the Cappella Palatina, Palermo, 1132–40.



Top: Duomo, Benevento, façade, 12thC; *Centre:* S. Cecilia in Trastevere, Rome, apse, 817ff.? but veneer is a replacement; *Bottom:* Chora, Istanbul, inner narthex, 11thC. Matched veneer is a favourite device in Islam & Christianity, and re-used where possible.



Top: W walls, Thessaloniki; *Centre:* Lefke Gate, Iznik, Leo III 717–41? *Bottom:* Walls between Istanbul Gate and lake, Iznik. The W walls of Thessaloniki re-use theatre seats taken from the E side of the city; Iznik flanks the Lefke Gate with funerary altars and a relief, and builds the walls flanking the approach from Istanbul with marble blocks firmed up by a course of column shafts.



Top: Aliki ancient quarry, on Thasos; *Right:* façade of S. Gilles du Gard, France, c.1180; *Left:* 6th-century sarcophagus inside S. Pierre, Moissac, re-used 1245. The ancient Aliki quarries are on the sea, but were apparently not worked in the Middle Ages. In France, marble was rare even at prestige sites such as Moissac and S. Gilles du Gard.



Top: re-used entablature over door on S transept of Pisa Duomo; *Centre:* re-worked antique entablature on exterior of S. Frediano, Pisa. *Bottom:* section of frieze from rear of Pantheon (where parts remain) recut on the verso for the interior of Pisa Duomo.



Top: recut entablature as lintel to the main entrance to Salerno Duomo. *Left:* Simon pillar, in cloister of Moissac, completed 1110; *Right:* interior of Pisa Baptistery, 1153ff.



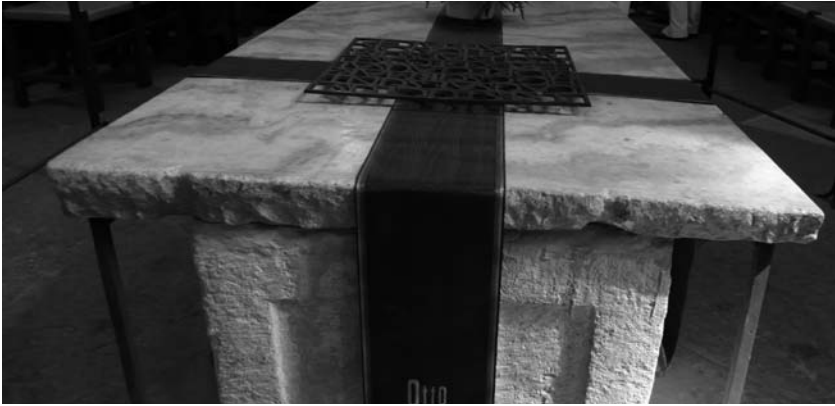
Clockwise from top left: Tomb of Ahmad Pasha, Damascus, early 16thC; Santiago da Compostella, Puerta de las Platerias, c.1111; Madrasa Al-Firdaws, Aleppo, 1235–41; Fountain from al-Rummaniyya, Córdoba, founded 936. NB the lavish use of coloured marble by the Moslems, and its sparing use (white only) at Santiago.



Top: Mosque of Umar, Bosra, Syria, 717–21; *Centre:* Minaret of Great Mosque, Kairouan, 836ff.; *Bottom:* the Roman decumanus at Bosra. At Bosra as at Kairouan, Roman remains are all around, and incorporated into mosques, minarets and houses.



Top: a broken granite shaft several kilometres from the site (and quarries) of Alexandria Troas; *Centre and Bottom:* interior and minaret details of the Arslanhane Mosque, 1290, at Ankara. Although antiquities decorate the whole of the exterior, marble shafts were not available to support the roof—although capitals were. The enormous shaft at Gulpınar demonstrates a persistent problem—the successful transport of large blocks.



Top: antiquities in the Rocca dei Rettori at Benevento, a fortification begun perhaps in the 7th century; *Centre:* Tomb of Otto I, d. 973, in Magdeburg Cathedral, with wedge-shaped marble slab; *Bottom:* apse of Magdeburg Cathedral, 1209ff., with antique shafts brought by Otto I for his earlier structure. Benevento demonstrates the wide variety of antiquities available locally – Magdeburg the showcasing of prestigious pieces imported (no doubt with enormous labour) from afar.



Top left: Marble veneer cladding (some replaced) in Kalenderhane, Istanbul, 1081/1185; *Top right:* Narbonne, 16thC rebuild of the Porte de Perpignan, decorated with antiquities from various stages of the mediaeval walls; *Bottom left:* Pulpit in Cappella Palatina, Palermo, 1132–40; *Bottom right:* The entrance to the fort at Seljuk, near Ephesus, decorated (in the 7thC?) with antiquities, including reliefs and column shafts. Kalenderhane might suggest that veneer was still being cut from antiquities, just as it was in Palermo in the same period. Seljuk is a fort constructed almost entirely from antiquities, from nearby Ephesus.